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EXAMINER
BELANI, KISHIN G

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2443	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/786,833	SOIN ET AL.
Office Action Summary	Examiner	Art Unit	
	KISHIN G. BELANI	2443	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>16 July 2009</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-17,19-56,58-72 and 74-88* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-17,19-56,58-72 and 74-88* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
        application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail. Date _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claim Objections

Claim 19 is objected to because of the following informalities:

Claim 19 has been amended, but is still marked as original. Please mark claim

19 as "currently amended".

Claim 88 is objected to because of the following informalities:

Please delete "further including" from the claim text.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 19-29; 30-40 and 75 are rejected under 35 U.S.C. 112, second

paragraph, as being indefinite for failing to particularly point out and distinctly claim the

subject matter which applicant regards as the invention.

Claims 19 and 21 recite "at least one projection protocol". However, projection

protocol is not described in the applicants' specification. The examiner has interpreted

said projection protocol to mean discovery protocol. **Dependent claims 20-29 are also**

rejected based on their dependence on the rejected independent claim 19.

Claims 30 and 35 recite "at least one extension protocol". However, extension

protocol is not described in the applicants' specification. **Dependent claims 31-40 are**

also rejected based on their dependence on the rejected independent claim 30.

The applicants have argued that paragraphs 0026, 0027, 0030, 0032, 0035,

0057, 0062, 0064 and 0143 provide support for the "at least one projection

protocol" and the "at least one extension protocol", Therefore, the 35 USC 112

second paragraph rejection of claims 19-29 and 30-40 should be withdrawn. The

examiner has not found any mention of either "a projection protocol" or "an

extension protocol" anywhere in the specification, let alone in the cited

paragraphs. Therefore, the 35 USC 112, second paragraph rejection of these

claims is maintained.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public
use or on sale in this country, more than one year prior to the date of application for patent in the United
States.

Claims 76-78 are rejected under 35 U.S.C. 102(b) as being anticipated by

Chang et al. (U.S. Patent Application Publication # 2002/0059415 A1).

Consider **claim 76**, Chang et al. show and disclose a method for receiving projected content by a computing device from a content sending device (Fig. 1 that shows a plurality of content sending devices 100 and a plurality of receiving devices 140 capable of receiving and projecting contents connected by wireless or wired networks; paragraph 0062 which discloses that an output controller 120 installed or connected to an output device 140, enables the output device to communicate and negotiate services with information apparatus 100 (a content sending device)), comprising:

specifying via a user interface mechanism of the computing device that the computing device is available to receive projected content (Fig. 8B which shows a user interface 810 that includes a discovery protocol to find the desired service providing devices; the interface clearly showing that one or more computing devices are available to receive projected content; paragraph 0199 discloses the same details); and

broadcasting the availability of the computing device via a discovery protocol, so that a content sending device that is looking for available alternate display devices receives an indication that the machine is available (paragraph 0136 that describes three different scenarios for discovering receiving devices using the discovery protocol; the second scenario teaches that all service devices can periodically or continuously announce or advertise the services they provide; further disclosing that the information apparatus 100 (content sending device) listens to such announcements and identifies the service it needs; the results of such a scenario are shown in Fig. 8B;

Note: Although Chang et al. reference uses a printer as a display device for the sake of

example, paragraph 0094 clearly lists and states other output devices including

projectors).

        Consider **claim 77**, and **as it applies to claim 76 above,** Chang et al. show and

disclose the claimed method, further comprising:

in response to said broadcasting, receiving a request to project content from the content

sending device (Fig. 8B, user interface 810 and Fig. 8C, device interface 820, wherein

Fig. 8C shows a response from the content receiving device, pointing out a missing

printer driver for a printer that the user at the content sending device does not have,

thereby disclosing that the user, in response to said broadcasting during the discovery

process, must have selected one of the printers from the user interface 810 in Fig. 8B,

and sent a request to project contents by the content receiving device);

specifying via the user interface whether the request is accepted (by sending back the

response 820, the content receiving device indicates that the request for the negotiated

service is accepted; paragraph 0201 describes the same details);

transmitting to the content sending device whether the request is accepted (Figs. 8C-

8E, response screens 820-820 that show content receiving device 140 transmitting

acceptance of the service request in response to the request from the content sending

device; paragraphs 0202-0205 disclose the same details); and

if the request is accepted, receiving content from the content sending device (Fig. 8F

that shows that the content from the content sending device has been received by the

output device 140 and is being printed).

Consider **claim 78**, and **as it applies to claim 77 above,** Chang et al. show and

disclose the claimed method, further comprising:

displaying the content on a display of the computing device (Fig. 1 that shows a plurality

of content receiving devices 140 that are capable of displaying the received contents,

including desktops, etc.; Fig. 8F that shows the received content that is being printed,

when the selected output device is a printer; paragraph 0205 describes the same

details;

Note: Although no display device is shown in Fig. 8F, paragraph 0094 clearly mentions

that the printer is just one sample example of an output device, many other output

devices such as, televisions, monitors, and projectors are also disclosed).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth
> in section 102 of this title, if the differences between the subject matter sought to be patented and the prior
> art are such that the subject matter as a whole would have been obvious at the time the invention was
> made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall
> not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness
      or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 2, 4, 11, 12, 16, 17, 58-60, and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Nurcahya et al. (U.S. Patent Application Publication # 2003/0225621 A1)** in view of **Chang et al. (U.S. Patent Application Publication # 2002/0059415 A1)** and further in view of **Reisman (U.S. Patent Application Publication # 2003/0229900 A1).**

Consider **claim 1**, Nurcahya et al. show and disclose a method for projecting content from a computing device to alternate display device(s) (abstract that describes wirelessly projecting content (advertisements and promotional material for products and

services) from an advertisement server 40 (shown in Fig. 1) to a plurality of portable

data terminals (PDT) 20 with displays 22; paragraph 0019 discloses the same details),

comprising:

transmitting the content to the selected at least one alternate display device (Fig. 4, step

63 that shows transmitting preview to selected PDTs through network (the Internet 18 in

Fig. 1); paragraph 0029 describes the same details; Figs. 2-3 show the details of said

PDTs).

 Although Nurcahya et al. do show a user interface 51 (in Fig. 5), and disclose

selecting one or more alternate display devices (paragraph 0019 which discloses that

the advertising server 40 allows controlled advertising on the network 18 to each of the

plurality of portable data terminals 20 such as through the display 22 or other user

interface by having the advertising software select, launch, and initiate the

advertisement at all or selected ones of the plurality of PDTs 20), it does not specifically

display via a user interface mechanism at least one indication corresponding to

available alternate display devices, ***wherein the alternate display devices***

comprising at least one of a projector, a monitor, or a laptop; selecting via the user

interface mechanism at least one alternate display device from the alternate display

devices indicated as available by said at least one indication***; and establishing a***

remote session, via a remoting protocol, between the computing device and the

selected at least one alternate display device.

 In the same field of endeavor, Chang et al. show and disclose the claimed

method, including displaying via a user interface mechanism at least one indication

corresponding to available alternate display devices, *wherein the alternate display devices comprising at least one of a projector, a monitor, or a laptop* (flowchart of Fig. 6, that shows providing a list of discovered output devices to user in step 600; Fig 8B that shows a Graphic User Interface 810 displaying discovered printer devices; paragraph 0196 and 0199 disclose the same details; **paragraph 0094 which further discloses that although a printer is selected as an example output device 140 (see Fig. 1), it may also be a television, monitor, and projectors, etc.**); and selecting via the user interface mechanism at least one alternate display device from the alternate display devices indicated as available by said at least one indication (Fig 8B; Graphic User Interface 810 showing discovered printer devices and a prompt to a user to indicate his or her selection/choice by selecting one device from the displayed list; paragraph 0196 and 0199 disclose the same details).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to display via a user interface mechanism at least one indication corresponding to available alternate display devices, wherein the alternate display devices comprising at least one of a projector, a monitor, or a laptop; and select via the user interface mechanism at least one alternate display device from the alternate display devices indicated as available by said at least one indication, as taught by Chang et al. in the method of Nurcahya et al., so that the advertiser user is able to select the discovered display terminals for wirelessly transmitting appropriate advertisements to the PDTs.

However, Nurcahya et al., as modified by Chang et al., do not specifically disclose *establishing a remote session, via a remoting protocol, between the computing device and the selected at least one alternate display device*.

In the same field of endeavor, Reisman discloses the claimed method, wherein said transmitting includes establishing a remote session, via a remoting protocol, between the computing device and the selected at least one alternate display device **(paragraphs 0051, 0105, 0479 and 0480 that disclose establishing a remote session, via a remoting protocol (RDP or Citrix ICA), between the computing device and the selected at least one alternate display device).**

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to establish a remote session, via a remoting protocol, between the computing device and the selected at least one alternate display device, as taught by Reisman, in the method of Nurcahya et al., as modified by Chang et al., so that the advertising server can wirelessly project advertisements on the selected remote display terminals.

Consider **claim 2**, and **as applied to claim 1 above**, Nurcahya et al., as modified by Chang et al. and Reisman, show and disclose the claimed method, further comprising discovering said available alternate display devices capable of receiving the content according to a discovery protocol (in Chang et al. reference, Fig. 5, discovery process step 502; paragraphs 0136-0137 which disclose a plurality of discovery

protocols, such as Bluetooth, HAVi, Jini, Salutation, Service Location Protocol, and

Universal Plug and Play, etc.).

Consider **claim 4**, and **as applied to claim 1 above**, Nurcahya et al., as

modified by Chang et al. and Reisman, further disclose the claimed method, wherein

the remoting protocol is the remote desktop protocol and the remote session is a

terminal services (TS) session (in Reisman reference, paragraph 0105 that describes

the remote protocol as Windows Remote Desktop Protocol (RDP) or Citrix Independent

Computing Architecture (ICA), and remote session as a Windows Terminal Service

(WTS)).

Consider **claim 11**, and **as applied to claim 2 above**, Nurcahya et al., as

modified by Chang et al. and Reisman, further disclose the claimed method, wherein

the discovery protocol is the universal plug and play (UPnP) protocol (in Chang et al.

reference, Fig. 5, discovery process step 502; paragraphs 0136-0137 which disclose a

plurality of discovery protocols, such as Bluetooth, HAVi, Jini, Salutation, Service

Location Protocol, and Universal Plug and Play, etc.).

Consider **claim 12**, and **as applied to claim 1 above**, Nurcahya et al., as

modified by Chang et al. and Reisman, disclose the claimed method, further comprising

specifying via the user interface the content to be transmitted according to said

transmitting to the selected at least one alternate display device (in Nurcahya et al.

reference, paragraph 0009 which discloses a method for selecting at least one of a

plurality of different advertisements (shown in Fig. 5 as a database 52) to be remotely

reviewed by users; paragraph 0019 which further describes a user interface 51 (shown

in Fig. 5) by which the advertisement server 40 allows controlled advertising on the

network 18 to each of the plurality of portable data terminals 20, by having the

advertising software select, launch, and initiate the advertisements at all or selected

ones of the plurality of PDTs 20).

Consider **claim 16**, and **as applied to claim 1 above**, Nurcahya et al., as

modified by Chang et al. and Reisman, disclose the claimed method, further comprising

a computer readable medium comprising computer executable modules having

computer executable instructions for carrying out the method of claim 1 (in Nurcahya et

al. reference, claims 16-18 which disclose advertising software, having computer

executable instruction stored on a computer readable medium, for carrying out the

method of claim 1; paragraph 0020 describes the same details).

Consider **claim 17**, and **as applied to claim 1 above**, Nurcahya et al., as

modified by Chang et al. and Reisman, disclose the claimed method, including

computing device comprising means for performing the method of claim 1 (in Nurcahya

et al. reference, Fig. 1, advertising server 40 including advertising software 45 with other

means shown in Figs. 3 and 5 for performing the method of claim 1; paragraphs 0019,

0026-0028 also disclose the means available to server 40 for performing the method of

claim 1).

Consider **claim 58**, Nurcahya et al. show and disclose a server computing device

for projecting content from the server computing device to client display device(s)

(abstract that describes wirelessly projecting content (advertisements and promotional

material for products and services) from an advertisement server 40 (a server

computing device shown in Fig. 1) to a plurality of portable data terminals (PDT, acting

as client display devices) 20 with displays 22; paragraph 0019 discloses the same

details), comprising:

a remote session component to package content for projection and to transmit

packaged content to selected client display devices (Fig. 4, step 63 that shows

transmitting preview to selected PDTs through network (the Internet 18 in Fig. 1);

paragraph 0029 describes the same details); and

a user interface component for a selection of content (paragraph 0009 which discloses

selecting at least one of a plurality of different advertisements (shown in Fig. 5 as a

database 52) to be remotely reviewed by users; paragraph 0019 which further describes

a user interface 51 (shown in Fig. 5) by which the advertisement server 40 allows

controlled advertising on the network 18 to each of the plurality of portable data

terminals 20, by having the advertising software select, launch, and initiate the

advertisements at all or selected ones of the plurality of PDTs 20).

However, Nurcahya et al. do not specifically disclose a discovery component that operates according to a discovery protocol to discover and control available client display devices capable of receiving the content; a remote session component that operates according to at least one remoting protocol to establish remote sessions between the server computing device and available client display devices; and a user interface component for at least one of (A) displaying at least one indication corresponding to the available client display devices discovered by and capable of being controlled by said discovery component and (B) receiving a selection of an indication of target client display device and a selection of content, whereby said remote session component creates a remote session for said target client display device and said server computing device.

In the same field of endeavor, Chang et al. show and disclose the claimed server computing device, comprising a discovery component that operates according to a discovery protocol to discover and control available client display devices capable of receiving the content (Fig. 5, discovery process step 502; paragraphs 0132, 0136 further disclose the details of the claimed server computing device comprising an information apparatus 100 (a discovery component) that operates according to a discovery protocol to discover and control available client display devices (output devices 140) capable of receiving the content; paragraph 0094 further disclosing that the output device 140 (shown in Fig. 1) may also be a display device such as a television, a monitor, or a projector, capable of displaying images or video; paragraph

0062 that discloses an output manager 308 residing in the information apparatus 100

that may install and configure the uploaded components or data); and

a user interface component for at least one of displaying at least one indication

corresponding to the available client display devices discovered by and capable of

being controlled by said discovery component (flowchart of Fig. 6, that shows providing

a list of discovered output devices to user in step 600; Fig 8B that shows a Graphic

User Interface 810 displaying discovered printer devices; paragraph 0196 and 0199

disclose the same details; paragraph 0094 which further discloses that although a

printer is selected as an example output device 140 (see Fig. 1), it may also be a

television, monitor, or a projector, etc.); and

receiving a selection of an indication of target client display device (Fig 8B; Graphic

User Interface 810 showing discovered printer devices and a prompt to a user to

indicate his or her selection/choice by selecting one device from the displayed list;

paragraph 0196 and 0199 disclose the same details).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time the invention was made to provide a discovery component that operates

according to a discovery protocol to discover and control available client display devices

capable of receiving the content; display via a user interface a list reflecting the at least

one second device discovered as available according to said discovering; a user

interface component for at least one of displaying at least one indication corresponding

to the available client display devices discovered by and capable of being controlled by

said discovery component, and receiving a selection of an indication of target client

display device, as taught by Chang et al. in the server computing device of Nurcahya et al., so that the advertiser user is able to select the discovered display terminals for wirelessly transmitting appropriate advertisements to the PDTs.

However, Nurcahya et al., as modified by Chang et al., do not specifically describe establishing a remote computing session with the device.

In the same field of endeavor, Reisman discloses the claimed server computing device, comprising a remote session component that operates according to at least one remoting protocol to establish remote sessions between the server computing device and available client display devices (paragraphs 0051, 0105, 0479 and 0480 that disclose establishing a remote session, via a remoting protocol (RDP or Citrix ICA), between the computing device and the selected display device).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to establish a remote session component that operates according to at least one remoting protocol to establish remote sessions between the server computing device and available client display devices, as taught by Reisman, in the server computing device of Nurcahya et al., as modified by Chang et al., so that the advertising server can wirelessly project advertisements on the selected remote display terminals.

Consider **claim 59**, and **as applied to claim 58 above**, Nurcahya et al., as modified by Chang et al. and Reisman, further disclose the claimed server computing device, wherein said discovery component discovers client display devices that are

advertising their availability according to the discovery protocol (in Chang et al.

reference, Fig. 5, discovery process step 502; paragraphs 0136-0137 which disclose

that service devices can periodically announce or advertise the services they provide;

the information apparatus 100 "listens to" such announcements and identifies the

service it needs).

Consider **claim 60**, and **as applied to claim 58 above**, Nurcahya et al., as

modified by Chang et al. and Reisman, further disclose the claimed server computing

device, wherein said at least one remoting protocol includes the remote desktop

protocol and said remote sessions are terminal services (TS) sessions (in Reisman

reference, paragraph 0105 that describes the remote protocol as Windows Remote

Desktop Protocol (RDP) or Citrix Independent Computing Architecture (ICA), and

remote session as a Windows Terminal Service (WTS)).

Consider **claim 62**, and **as applied to claim 58 above**, Nurcahya et al., as

modified by Chang et al. and Reisman, further disclose the claimed server computing

device, wherein the discovery protocol is the universal plug and play (UPnP) protocol (in

Chang et al. reference, Fig. 5, discovery process step 502; paragraphs 0136-0137

which disclose a plurality of discovery protocols, such as Bluetooth, HAVi, Jini,

Salutation, Service Location Protocol, and Universal Plug and Play, etc.).

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Nurcahya et al. (U.S. Patent Application Publication # 2003/0225621 A1) in view of

Chang et al. (U.S. Patent Application Publication # 2002/0059415 A1) and further in

view of **Reisman (U.S. Patent Application Publication # 2003/0229900 A1)** and

further in view of **Strunk et al. (U.S. Patent Application Publication # 2003/0078840**

A1).

Consider **claim 5**, and **as applied to claim 1 above**, Nurcahya et al., as

modified by Chang et al. and Reisman, disclose the claimed method, except further

comprising:

designating at least one portion of the content to be hidden when rendered on the

selected at least one alternate display device.

In the same field of endeavor, Strunk et al. show and disclose the claimed

method, further comprising designating at least one portion of the content to be hidden

when rendered on the selected at least one alternate display device (Figs. 1A and 2 that

show a collection 28 of several poster navigation controls 32-39B; paragraphs 58, 71

and 76 and claim 16 describe the details corresponding to the claimed method;

paragraph 65, lines 8-11 disclose that while a transmitted poster may be rendered in the

display area 20, the transmitted control buttons can be exposed or hidden based upon

the contents of a Playlist and/or based upon commands encoded in the poster image

currently being displayed).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to designate at least one portion of the content to be hidden when rendered on the selected at least one alternate display device, as taught by Strunk et al., in the method of Nurcahya et al., as modified by Chang et al. and Reisman, so as to provide access to the content navigation controls only when necessary.

Claims 6, 9, 10, and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Nurcahya et al. (U.S. Patent Application Publication # 2003/0225621 A1)** in view of **Chang et al. (U.S. Patent Application Publication # 2002/0059415 A1)** and further in view of **Reisman (U.S. Patent Application Publication # 2003/0229900 A1)** and further in view of **Microsoft in Education (Collaborating with others using NetMeeting, 1999 Microsoft Educator Tutorial Series).**

Consider **claim 6**, and **as applied to claim 1 above**, Nurcahya et al., as modified by Chang et al. and Reisman, disclose the claimed method, except wherein said transmitting includes transmitting additional content to be rendered on the selected at least one alternate display device when rendering the content.

In the same field of endeavor, Microsoft Educator Tutorial Series discloses the claimed method, wherein said transmitting includes transmitting additional content to be rendered on the selected at least one alternate display device when rendering the

content (page 8, paragraph 2 (marked as item 5) which describes a "Remote Pointer
On" that acts as a laser pointer to pinpoint area of interest on a collaboration whiteboard
shown in the figure on page 7; the shape and the position of the laser pointer is
transmitted as additional content along with the whiteboard content and displayed on
the selected remote display).

Therefore, it would have been obvious to a person of ordinary skill in the art at
the time the invention was made to include transmitting additional content to be
rendered on the selected at least one alternate display device when rendering the
content, as taught by Microsoft Educator Tutorial Series, in the method of Nurcahya et
al., as modified by Chang et al. and Reisman, so as to draw the attention of the
audience to the specific point under discussion.

Consider **claim 9**, and **as applied to claim 1 above**, Nurcahya et al., as
modified by Chang et al., Reisman, and Microsoft Educator Tutorial Series, further
disclose the claimed method, wherein said transmitting includes:
transmitting a request to transmit content to an alternate display device of the selected
at least one alternate display device (in Microsoft Educator Tutorial Series reference for
a NetMeeting, the window labeled "New Call" on page 3 that enables a transmitting
device to transmit a request for transmitting content to a selected receiving device which
is being called; steps 1-3 listed in the section "To place a call" on page 4 disclose the
same details); and

waiting for a response from the alternate display device authorizing the transmission of

content according to said transmitting (in Microsoft Educator Tutorial Series reference,

page 4, steps 4-5 in the section "To place a call", that disclose waiting for an

"Accept/Reject" button click response from the receiving device authorizing the

transmission of content according to said transmitting).

      Consider **claim 10**, and **as applied to claim 1 above**, Nurcahya et al., as

modified by Chang et al., Reisman, and Microsoft Educator Tutorial Series, further

disclose the claimed method, wherein the content is substantially simultaneously

displayed on the selected at least one alternate display device in response to said

transmitting (in Microsoft Educator Tutorial Series reference for a NetMeeting, page 2,

section "Before You Begin", lines 1-5, which disclose that the NetMeeting is a

synchronous online collaboration and communication method that happens in "real

time", thereby teaching that the content is substantially simultaneously displayed on the

selected receiving display device in response to said transmitting).

      Consider **claim 61**, and **as applied to claim 58 above**, Nurcahya et al., as

modified by Chang et al., and Reisman, disclose the claimed server computing device,

except wherein before transmitting content to a selected client display device, said

remote session component transmits an authorization request to the selected client

display device; and waits for a response from the selected client display device

authorizing the transmission of content.

In the same field of endeavor, Microsoft Educator Tutorial Series disclose the claimed server computing device, wherein before transmitting content to a selected client display device, said remote session component transmits an authorization request to the selected client display device (the window labeled "New Call" on page 3 that enables a transmitting device to transmit a request for transmitting content to a selected receiving device which is being called; steps 1-3 listed in the section "To place a call" on page 4 disclose the same details); and

waits for a response from the selected client display device authorizing the transmission of content (page 4, steps 4-5 in the section "To place a call", that disclose waiting for an "Accept/Reject" button click response from the receiving device authorizing the transmission of content).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to transmit an authorization request to the selected client display device, before transmitting content to the selected client display device, and wait for a response from the selected client display device authorizing the transmission of content, as taught by Microsoft Educator Tutorial Series, in the claimed server computing device of Nurcahya et al., as modified by Chang et al., and Reisman, so as to be able to communicate and transfer the content to be displayed on the remote display.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Nurcahya et al. (U.S. Patent Application Publication # 2003/0225621 A1)** in view of

Chang et al. (U.S. Patent Application Publication # 2002/0059415 A1) and further in view of **Reisman (U.S. Patent Application Publication # 2003/0229900 A1)** and further in view of **Microsoft in Education (Collaborating with others using NetMeeting, 1999 Microsoft Educator Tutorial Series)** and further in view of **Quillen et al. (U.S. Patent Publication # 6,094,189).**

Consider **claim 7,** and **as applied to claim 6 above,** Nurcahya et al., as modified by Chang et al., Reisman, and Microsoft Educator Tutorial Series, disclose the claimed method, except wherein said additional content is input to the computing device to be displayed as an illuminated point over the content being rendered.

In the same field of endeavor, Quillen et al. show and disclose the claimed method, wherein said additional content is input to the computing device to be displayed as an illuminated point over the content being rendered (Figs. 1 and 2 that show the details of a visual echo remote laser pointer that allows a remotely located server to point to items within a viewing field of a camera, wherein the laser pointer is operated at a remote site with a computer controlled mouse, the shape and the spatial position of the laser pointer being transmitted wirelessly and pointing (as an illuminated point) to a scene displayed by a video camera; column 1, lines 49-67 disclose the same details).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include said additional content as input to the computing device to be displayed as an illuminated point over the content being rendered, as taught by Quillen et al., in the method of Nurcahya et al., as modified by

Chang et al., Reisman, and Microsoft Educator Tutorial Series, so as to draw attention

of the recipient to the specific display location under review.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Nurcahya et al. (U.S. Patent Application Publication # 2003/0225621 A1) in view of

Chang et al. (U.S. Patent Application Publication # 2002/0059415 A1) and further in

view of **Reisman (U.S. Patent Application Publication # 2003/0229900 A1) and**

further in view of **Microsoft in Education (Collaborating with others using**

NetMeeting, 1999 Microsoft Educator Tutorial Series) and further in view of Quillen

et al. (U.S. Patent Publication # 6,094,189) and further in view of Rosen et al. (U.S.

Patent Publication # 6,065,057).

Consider **claim 8**, and **as applied to claim 7 above**, Nurcahya et al., as

modified by Chang et al., Reisman, Microsoft Educator Tutorial Series and Quillen et al.,

further disclose the claimed method, wherein said additional content is mouse input of

the computing device to be displayed on the display of said at least one alternate

display device (in Quillen et al. reference, Figs. 1 and 2 that show the details of a visual

echo remote laser pointer that allows a remotely located server to point to items within a

viewing field of a camera, wherein the laser pointer is operated at a remote site with a

computer controlled mouse, the shape and the spatial position of the laser pointer being

transmitted wirelessly and pointing to a scene displayed by a video camera; column 1,

lines 49-67 disclose the same details).

However, Nurcahya et al., as modified by Chang et al., Reisman, Microsoft

Educator Tutorial Series and Quillen et al., do not specifically disclose that the

additional content is to be displayed as any of (A) a colored dot, (B) a laser pointer and

(C) a pointer with a trail.

In the same field of endeavor, Rosen et al. show and disclose the claimed

method, wherein said additional content is mouse input of the computing device to be

displayed as any of (A) a colored dot, (B) a laser pointer and (C) a pointer with a trail on

the display of said at least one alternate display device (Fig. 8, modified pointer 44a;

column 3, lines 54-60 which disclose a means for enabling cursors and pointers to

change color, shape, etc., when the display terminal, which has a network connection,

receives certain instructions from a remote or server computer attached to the network).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time the invention was made to display said additional content, i.e. mouse input of

the computing device, as a colored dot, as taught by Rosen et al., in the method of

Nurcahya et al., as modified by Chang et al., Reisman, Microsoft Educator Tutorial

Series and Quillen et al., so as to draw attention of the recipient to the specific display

location under review.

Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Nurcahya et al. (U.S. Patent Application Publication # 2003/0225621 A1) in view of

Chang et al. (U.S. Patent Application Publication # 2002/0059415 A1) and further in

view of **Reisman (U.S. Patent Application Publication # 2003/0229900 A1)** and

further in view of **Brown et al. (U.S. Patent Application Publication # 2003/0023681 A1).**

Consider **claim 13**, and **as applied to claim 1 above**, Nurcahya et al., as modified by Chang et al. and Reisman, show and disclose the claimed method, except further including, for each remote session between the computing device and the selected at least one alternate display device, displaying via the user interface an indication of the signal strength associated with the remote session.

In the same field of endeavor, Brown et al. show and disclose the claimed method, further including, for each remote session between the computing device and the selected at least one alternate display device, displaying via the user interface an indication of the signal strength associated with the remote session (Figs. 4-5, that show Device Information 78, 80 and 86 on a user interface, that includes an indication of the signal strength (75% in item 78 of Fig. 4) associated with the remote session; paragraph 0062 discloses the same details).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to display via the user interface an indication of the signal strength associated with the remote session, as taught by Brown et al., in the method of Nurcahya et al., as modified by Chang et al. and Reisman, so that the transmitting device can determine the quality of service for the receiving device.

Consider **claim 14**, and **as applied to claim 13 above**, Nurcahya et al., as modified by Chang et al., Reisman and Brown et al., further show and disclose the claimed method, wherein a predetermined number of levels of signal quality can be shown for each remote session based on at least one of obstructions, distance and data rate to be maintained (in Brown et al. reference, Fig. 4 that shows Device Information 78 that includes an indication of the signal strength (75% of a possible 100 predetermined number of levels of signal quality) associated with the remote session; paragraph 0062 discloses the same details, further disclosing that determining the signal quality will enable a user to determine what types of transmissions will be received by the other device, the speed of communications (data rate), etc.).

Consider **claim 15**, and **as applied to claim 13 above**, Nurcahya et al., as modified by Chang et al., Reisman and Brown et al., show and disclose the claimed method, further including storing a file associated with the signal strength of the remote session (in Brown et al. reference, Fig. 5; that shows a user interface 86 for displaying Device Information as depicted in Fig. 6 as a "Device Output Preference" file 90, which includes an indication of the signal strength (items 97, 100) of the remote session; paragraphs 0071 and 0075 disclose the same details).

Claims 19-24, 30 and 35-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Nurcahya et al. (U.S. Patent Application Publication #**

2003/0225621 A1) in view of **Chang et al. (U.S. Patent Application Publication #
2002/0059415 A1).**

Consider **claim 19**, Nurcahya et al. show and disclose a computer readable
medium comprising computer executable instructions for implementing a method of
interfacing with a user of a computing device having content capable of being projected
to other computing devices (claims 16-18 that disclose a computer readable medium
comprising computer executable instructions; abstract that describes wirelessly
projecting content (advertisements and promotional material for products and services)
from an advertisement server 40 (shown in Fig. 1) to a plurality of portable data
terminals (PDT) 20 with displays 22; paragraph 0019 discloses the same details; Fig. 5,
advertiser computer 50 with user interface 51 and advertisement database 52 that
includes content capable of being projected to other computing devices (PDTs 20
shown in Figs. 2-3)), the method comprising:
displaying a user interface on the computing device (Fig. 5 that shows user interface 51
on the advertiser (user) computer; paragraph 0028 describes the same details).

However, Nurcahya et al. do not specifically disclose discovering whether at least
one alternate display device is capable of receiving the content according to the at least
one ~~projection~~ discovery protocol; and if, at least one alternate display device is capable
of receiving the content, displaying at least one indication of the at least one alternate
display device via the user interface.

In the same field of endeavor, Chang et al., show and disclose the claimed computer readable medium comprising computer executable instructions for implementing the claimed method, further comprising discovering whether at least one alternate display device is capable of receiving the content according to the at least one ~~projection~~ discovery protocol*, wherein whether the at least one alternate display is capable of receiving the content depends on at least one of a user configuration or whether the at least one alternate display is already in use* (Fig. 5, discovery process step 502; paragraphs 0132-0140 further disclose the details of the claimed method step**; paragraph 0008 which describes a process of a user configuring his/her output display device by downloading a device driver or plug-and-play driver on their computing or communication device controlling the output display device before outputting digital content to an output device**); and if, at least one alternate display device is capable of receiving the content, displaying at least one indication of the at least one alternate display device via the user interface (flowchart of Fig. 6, that shows providing a list of discovered output devices to user in step 600; Fig 8B that shows a Graphic User Interface 810 displaying discovered printer devices; paragraph 0196 and 0199 disclose the same details; paragraph 0094 which further discloses that although a printer is selected as an example output device 140 (see Fig. 1), it may also be a television, monitor, and projectors, etc.).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use a discovery protocol to discover whether at least one alternate display device is capable of receiving the content according to the at least

one ~~projection~~ discovery protocol, wherein whether the at least one alternate display is capable of receiving the content depends on at least one of a user configuration or whether the at least one alternate display is already in use; and if, at least one alternate display device is capable of receiving the content, displaying at least one indication of the at least one alternate display device via the user interface, as taught by Chang et al., in the method of Nurcahya et al., so that the advertising server can wirelessly project advertisements on the discovered and selected display terminals.

Consider **claim 20**, and **as applied to claim 19 above**, Nurcahya et al., as modified by Chang et al., disclose the claimed computer readable medium, wherein the method further including selecting the content via the user interface (in Nurcahya et al. reference, paragraph 0009 which discloses a method for selecting at least one of a plurality of different advertisements (shown in Fig. 5 as a database 52) to be remotely reviewed by users; paragraph 0019 which further describes a user interface 51 (shown in Fig. 5) by which the advertisement server 40 allows controlled advertising on the network 18 to each of the plurality of portable data terminals 20, by having the advertising software select, launch, and initiate the advertisements at all or selected ones of the plurality of PDTs 20).

Consider **claim 21**, and **as applied to claim 19 above**, Nurcahya et al., as modified by Chang et al., further show and disclose the claimed computer readable medium, wherein said discovering includes discovering whether the at least one

alternate display device is capable of receiving the content according to the at least one

~~projection~~ discovery protocol (in Chang et al. reference, Fig. 5, discovery process step

502; paragraphs 0136-0137 which disclose a plurality of discovery protocols, such as

Bluetooth, HAVi, Jini, Salutation, Service Location Protocol, and Universal Plug and

Play, etc.).

Consider **claim 22**, and **as applied to claim 19 above**, Nurcahya et al., as

modified by Chang et al., further show and disclose the claimed computer readable

medium, wherein said discovering includes discovering at least one Internet Protocol

(IP) address corresponding to the at least one alternate display device (in Chang et al.

reference, Fig. 5, step 502 that shows output device (display or projection) discovery

process; Fig. 6 that shows a user authentication process in step 604; Fig. 8B that shows

the result of the device discovery process in block 810 (a graphic user interface);

paragraphs 0094, 0132-0136 and 0183 describe the details of the device discovery and

the process of user authentication, including determining the IP address of the

information apparatus 100, either manually from the user, or automatically by the output

controller 120 or output device 140 (Figs. 1 and 4A-4F)).

Consider **claim 23**, and **as applied to claim 19 above**, Nurcahya et al., as

modified by Chang et al., further disclose the claimed computer readable medium,

wherein said discovering includes detecting at least one alternate display device

advertising its presence according to Universal Plug and Play (UPnP) protocol(s) (in

Chang et al. reference, Fig. 5, discovery process step 502; paragraphs 0136-0137

which disclose a plurality of discovery protocols, such as Bluetooth, HAVi, Jini,

Salutation, Service Location Protocol, and Universal Plug and Play, etc., wherein a

display device may advertise its presence according to Universal Plug and Play (UPnP)

protocol).

Consider **claim 24**, and **as applied to claim 19 above**, Nurcahya et al., as

modified by Chang et al., show and disclose the claimed computer readable medium,

further including selecting via the user interface an indication of said at least one

indication *of the at least one alternate display device* (in Chang et al. reference, Fig

8B; Graphic User Interface 810 showing discovered display devices and a prompt to a

user to indicate his or her selection/choice by selecting one device from the displayed

list; paragraph 0196 and 0199 disclose the same details); and

controlling a characteristic of the alternate display device associated with the selected

indication (in Chang et al. reference, Fig 8B; Graphic User Interface 810 showing

discovered display devices with a down-pointing arrow for "more information" for a

selected device and right pointing arrow 814 for additional service and device control

options, such as quality of service control and access restriction, etc.; paragraph 0062

which discloses that an application such as an output manager 308 residing in the

information apparatus 100 may install and configure the uploaded components or data,

thereby disclosing controlling a characteristic of the alternate display device associated

with the selected indication).

Consider **claim 30**, Nurcahya et al. disclose a computer readable medium comprising computer executable instructions for implementing a method of interfacing with a user of a computing device*, the computing device comprising a plurality of portions of display content,* having a plurality of displays capable of displaying separate *portions of the* content, effectively disaggregating the display of the computing device (in Nurcahya et al. reference, claims 16-18; abstract that describes a method used by an advertiser computer 50 (see Fig. 5) for wirelessly projecting content (**advertisements and promotional material for products and services** contained in an advertisement database 52) from an advertisement server 40 (shown in Fig. 1) to a plurality of portable data terminals (PDT) 20 with displays 22, such as those in grocery store, book store and stadium (shown in Fig. 1), thereby effectively disaggregating the display of the computing device; paragraphs 0019, 0022 and 0028 disclose the same details**; advertisement text portion of the content being displayed separately from the photos or pictures content**).

However, Nurcahya et al. do not disclose displaying a user interface on a first display of the plurality of displays of the computing device; discovering whether at least one alternate display device is capable of receiving *a portion of the* content associated with at least one portion of one of the plurality of displays of the computing device according to at least one extension protocol; and if, according to said discovering, at least one alternate display device is capable of receiving the *portion of* content,

displaying at least one indication of the at least one alternate display device via the user

interface.

In the same field of endeavor. Chang et al. disclose the claimed computer

readable medium comprising computer executable instructions for the claimed method,

the method comprising:

displaying a user interface on a first display of the plurality of displays of the computing

device (flowchart of Fig. 6, that shows providing a list of discovered output devices to

user in step 600; Fig 8B that shows a Graphic User Interface 810 displaying discovered

printer devices; paragraph 0196 and 0199 disclose the same details; paragraph 0094

which further discloses that although a printer is selected as an example output device

140 (see Fig. 1), it may also be a television, monitor, and projectors, etc.);

discovering whether at least one alternate display device is capable of receiving *a

portion of the* content associated with at least one portion of one of the plurality of

displays of the computing device according to at least one extension protocol (Fig. 5,

discovery process step 502; paragraphs 0132-0140 further disclose the details of the

claimed method step**; furthermore, if a device is capable of receiving the content, it

is also capable of receiving a portion of the content**); and

if, according to said discovering, at least one alternate display device is capable of

receiving the *portion of* content, displaying at least one indication of the at least one

alternate display device via the user interface (flowchart of Fig. 6, that shows providing

a list of discovered output devices to user in step 600; Fig 8B that shows a Graphic

User Interface 810 displaying discovered printer devices; paragraph 0196 and 0199

disclose the same details; paragraph 0094 which further discloses that although a
printer is selected as an example output device 140 (see Fig. 1), it may also be a
television, monitor, and projectors, etc.).

Therefore, it would have been obvious to a person of ordinary skill in the art at
the time the invention was made to display a user interface on a first display of the
plurality of displays of the computing device; discover whether at least one alternate
display device is capable of receiving a portion of the content associated with at least
one portion of one of the plurality of displays of the computing device according to at
least one extension protocol; and if, according to said discovering, at least one alternate
display device is capable of receiving the portion of content, displaying at least one
indication of the at least one alternate display device via the user interface, as taught by
Chang et al. in the computer readable medium comprising computer executable
instructions for the claimed method of Nurcahya et al., so that the advertiser user is able
to select the discovered display terminals for wirelessly transmitting appropriate
advertisements to the PDTs.

Consider **claim 35**, and **as applied to claim 30 above**, Nurcahya et al., as
modified by Chang et al., further disclose the claimed computer readable medium,
wherein said discovering includes discovering whether at least one alternate display
device is capable of receiving said at least one portion of the display of the computing
device according to the at least one extension protocol (in Chang et al. reference, Fig.

5, discovery process step 502; paragraphs 0134, 0136 further disclose the details of the

claimed method).

Consider **claim 36**, and **as applied to claim 30 above**, Nurcahya et al., as

modified by Chang et al., further show and disclose the claimed computer readable

medium, wherein said discovering includes discovering at least one Internet Protocol

(IP) address corresponding to the at least one alternate display device (in Chang et al.

reference, Fig. 5, step 502 that shows output device (display or projection) discovery

process; Fig. 6 that shows a user authentication process in step 604; Fig. 8B that shows

the result of the device discovery process in block 810 (a graphic user interface);

paragraphs 0094, 0132-0136 and 0183 describe the details of the device discovery and

the process of user authentication, including determining the IP address of the

information apparatus 100, either manually from the user, or automatically by the output

controller 120 or output device 140 (Figs. 1 and 4A-4F)).

Consider **claim 37**, and **as applied to claim 30 above**, Nurcahya et al., as

modified by Chang et al., further disclose the claimed computer readable medium,

wherein said discovering includes detecting at least one alternate display device

advertising its presence according to Universal Plug and Play (UPnP) protocol(s) (in

Chang et al. reference, Fig. 5, discovery process step 502; paragraphs 0136-0137

which disclose that service devices can periodically announce or advertise the services

they provide; the information apparatus 100 "listens to" such announcements and identifies the service it needs).

Consider **claim 38**, and **as applied to claim 30 above**, Nurcahya et al., as modified by Chang et al., show and disclose the claimed computer readable medium, further including selecting via the user interface an indication of said at least one indication *of the at least one alternate display device* (in Chang et al. reference, Fig 8B; Graphic User Interface 810 showing discovered display devices and a prompt to a user to indicate his or her selection/choice by selecting one device from the displayed list; paragraph 0196 and 0199 disclose the same details); and controlling a characteristic of the alternate display device associated with the selected indication (in Chang et al. reference, Fig 8B; Graphic User Interface 810 showing discovered display devices with a down-pointing arrow for "more information" for a selected device and right pointing arrow 814 for additional service and device control options, such as quality of service control and access restriction, etc.; paragraph 0062 which discloses that an application such as an output manager 308 residing in the information apparatus 100 may install and configure the uploaded components or data, thereby disclosing controlling a characteristic of the alternate display device associated with the selected indication).

Claims 25, 39, 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Nurcahya et al. (U.S. Patent Application Publication #**

2003/0225621 A1) in view of **Chang et al. (U.S. Patent Application Publication #**
2002/0059415 A1) and further in view of **Reisman (U.S. Patent Application**
Publication # 2003/0229900 A1).

Consider **claim 25**, and **as applied to claim 24 above**, Nurcahya et al., as
modified by Chang et al. and Reisman, further disclose the claimed computer readable
medium, wherein said controlling includes controlling according to Remote Desktop
Protocol (RDP) (in Reisman reference, paragraph 0105 that describes the remote
protocol as Windows Remote Desktop Protocol (RDP) or Citrix Independent Computing
Architecture (ICA)).

Consider **claim 39**, and **as applied to claim 38 above**, Nurcahya et al., as
modified by Chang et al. and Reisman, further disclose the claimed computer readable
medium, wherein said controlling includes controlling according to Remote Desktop
Protocol (RDP) (in Reisman reference, paragraph 0105 that describes the remote
controlling protocol as Windows Remote Desktop Protocol (RDP) or Citrix Independent
Computing Architecture (ICA)).

Consider **claim 41**, Nurcahya et al. show and disclose a computer readable
medium comprising computer executable instructions for carrying out a method for
transmitting content from a first computing device to at least one second computing
device for manipulation or rendering (abstract that describes wirelessly projecting

content (advertisements and promotional material for products and services) from an advertisement server 40 (shown in Fig. 1) to a plurality of portable data terminals (PDT) 20 with displays 22; paragraph 0019 discloses the same details), the method comprising:

transmitting content to the device according to a protocol associated with the remote computing session (Fig. 4, step 63 that shows transmitting preview to selected PDTs through network (the Internet 18 in Fig. 1); paragraph 0029 describes the same details).

However, Nurcahya et al. do not specifically disclose discovering at least one second device available to receive content from the first computing device comprising the at least one computer readable medium, the at least one second device including at least one of (A) at least one available wireless projector and (B) at least one available other computer; displaying via a user interface a list reflecting the at least one second device discovered as available according to said discovering; selecting a device from the list; and establishing a remote computing session with the device.

In the same field of endeavor, Chang et al. show and disclose the claimed computer readable medium, comprising computer executable instructions for carrying out a method including discovering at least one second device available to receive content from the first computing device comprising the at least one computer readable medium, the at least one second device including at least one of (A) at least one available wireless projector and (B) at least one available other computer (Fig. 5, discovery process step 502; paragraphs 0132, 0136 further disclose the details of the claimed method step; paragraph 0094 further disclosing that the output device 140

(shown in Fig. 1) may also be a display device such as a television, a monitor, or a
projector, capable of displaying images or video);

displaying via a user interface a list reflecting the at least one second device discovered
as available according to said discovering (flowchart of Fig. 6, that shows providing a list
of discovered output devices to user in step 600; Fig 8B that shows a Graphic User
Interface 810 displaying discovered printer devices; paragraph 0196 and 0199 disclose
the same details; paragraph 0094 which further discloses that although a printer is
selected as an example output device 140 (see Fig. 1), it may also be a television,
monitor, or a projector, etc.); and

selecting a device from the list (Fig 8B; Graphic User Interface 810 showing discovered
printer devices and a prompt to a user to indicate his or her selection/choice by
selecting one device from the displayed list; paragraph 0196 and 0199 disclose the
same details).

Therefore, it would have been obvious to a person of ordinary skill in the art at
the time the invention was made to discover at least one second device available to
receive content from the first computing device comprising the at least one computer
readable medium, the at least one second device including at least one of (A) at least
one available wireless projector and (B) at least one available other computer; display
via a user interface a list reflecting the at least one second device discovered as
available according to said discovering; and select a device from the list, as taught by
Chang et al. in the computer readable medium of Nurcahya et al., so that the advertiser

user is able to select the discovered display terminals for wirelessly transmitting

appropriate advertisements to the PDTs.

However, Nurcahya et al., as modified by Chang et al., do not specifically

describe establishing a remote computing session with the device.

In the same field of endeavor, Reisman discloses the claimed computer readable

medium, comprising computer executable instructions for carrying out a method

including establishing a remote computing session with the device (paragraphs 0051,

0105, 0479 and 0480 that disclose establishing a remote session, via a remoting

protocol (RDP or Citrix ICA), between the computing device and the selected display

device).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time the invention was made to establish a remote computing session with the

device, as taught by Reisman, in the computer readable medium of Nurcahya et al., as

modified by Chang et al., so that the advertising server can wirelessly project

advertisements on the selected remote display terminals.

Consider **claim 42**, and **as applied to claim 41 above**, Nurcahya et al., as

modified by Chang et al. and Reisman, show and disclose the claimed computer

readable medium, comprising computer executable instructions for carrying out a

method further including configuring via the user interface a setting, wherein said setting

governs at least one characteristic of the remote computing session established

according to said establishing (in Chang et al. reference, Fig 8B; Graphic User Interface

810 showing discovered display devices with a down-pointing arrow for "more

information" for a selected device and right pointing arrow 814 for additional service and

device control options, such as quality of service control and access restriction, etc.;

paragraph 0062 which discloses that an application such as an output manager 308

residing in the information apparatus 100 may install and configure the uploaded

components or data, thereby disclosing controlling a characteristic of the alternate

display device associated with the selected indication).

Claims 26-28 and 63-72 are rejected under 35 U.S.C. 103(a) as being

unpatentable over **Nurcahya et al. (U.S. Patent Application Publication #**

2003/0225621 A1) in view of **Chang et al. (U.S. Patent Application Publication #**

2002/0059415 A1) and further in view of **Microsoft in Education (Collaborating with**

others using NetMeeting, 1999 Microsoft Educator Tutorial Series).

Consider **claim 26**, and **as applied to claim 19 above**, Nurcahya et al., as

modified by Chang et al. and Microsoft Educator Tutorial Series, further disclose the

claimed computer readable medium, wherein the method further including:

selecting via the user interface an indication of said at least one indication *of the at*

least one alternate display device (in Chang et al. reference, Fig 8B; Graphic User

Interface 810 showing discovered display devices and a prompt to a user to indicate his

or her selection/choice by selecting one device from the displayed list; paragraph 0196

and 0199 disclose the same details); and

creating a remoting connection to the alternate display device associated with the

selected indication (in Microsoft Educator Tutorial Series reference for a NetMeeting,

the window labeled "New Call" on page 3 that enables creating a remote connection to

a selected display device associated with the selected indication (address of the

computer to call); steps 1-3 listed in the section "To place a call" on page 4 disclose the

same details).

Consider **claim 27**, and **as applied to claim 26 above**, Nurcahya et al., as

modified by Chang et al. and Microsoft Educator Tutorial Series, further disclose the

claimed computer readable medium, wherein the method further including:

transmitting the content to the alternate display device associated with the selected

indication ***of the at least one alternate display device*** via the remoting connection (in

Nurcahya et al. reference, Fig. 4, step 63 that shows transmitting preview to selected

PDTs through network (the Internet 18 in Fig. 1); paragraph 0029 describes the same

details).

Consider **claim 28**, and **as applied to claim 26 above**, Nurcahya et al., as

modified by Chang et al. and Microsoft Educator Tutorial Series, further disclose the

claimed computer readable medium, wherein said creating includes at least one of (A)

creating a Terminal Services session with the alternate display device and (B) creating

a remoting connection with universal plug and play (UPnP) technology (in Chang et al.

reference, paragraphs 0136-0137 which disclose a plurality of discovery protocols, such

as Bluetooth, HAVi, Jini, Salutation, Service Location Protocol, and Universal Plug and

Play, etc. that may be used to create a remote connection with the display device).

Consider **claim 63**, Nurcahya et al. show and disclose a method for connecting a

computing device to an alternate display device in order to project content from the

computing device to the alternate display device (abstract that describes a method for

wirelessly connecting an advertisement server 40 (shown in Fig. 1) to project content

(advertisements and promotional material for products and services) to a plurality of

portable data terminals (PDT) 20 with displays 22; paragraph 0019 discloses the same

details), comprising:

selecting content to be projected, whereby the selected content is to be projected to the

selected alternate display device (paragraph 0009 which discloses selecting at least

one of a plurality of different advertisements (shown in Fig. 5 as a database 52) to be

remotely reviewed by users; paragraph 0019 which further describes a user interface 51

(shown in Fig. 5) by which the advertisement server 40 allows controlled advertising on

the network 18 to each of the plurality of portable data terminals 20, by having the

advertising software select, launch, and initiate the advertisements at all or selected

ones of the plurality of PDTs 20).

However, Nurcahya et al. do not specifically disclose a method for discovering

according to a discovery protocol at least one alternate display device capable of

receiving and rendering projected content; selecting an alternate display device from

said at least one alternate display device, and establishing a connection between the computing device and the selected alternate display device.

In the same field of endeavor, Chang et al. show and disclose the claimed method for discovering according to a discovery protocol at least one alternate display device capable of receiving and rendering projected content (Fig. 5, discovery process step 502; paragraphs 0132, 0136 further disclose the details of the claimed method comprising an information apparatus 100 (a discovery component) that operates according to a discovery protocol to discover and control available client display devices (output devices 140) capable of receiving the content; paragraph 0094 further disclosing that the output device 140 (shown in Fig. 1) may also be a display device such as a television, a monitor, or a projector, capable of displaying images or video); and selecting an alternate display device from said at least one alternate display device (Fig 8B; Graphic User Interface 810 showing discovered printer devices and a prompt to a user to indicate his or her selection/choice by selecting one device from the displayed list; paragraph 0196 and 0199 disclose the same details).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a method for method for discovering according to a discovery protocol at least one alternate display device capable of receiving and rendering projected content, and selecting an alternate display device from said at least one alternate display device, as taught by Chang et al. in the method of Nurcahya et al., so that the advertiser user is able to select the discovered display terminals for wirelessly transmitting appropriate advertisements to the PDTs.

However, Nurcahya et al., as modified by Chang et al., do not specifically describe establishing a connection between the computing device and the selected alternate display device.

In the same field of endeavor, Microsoft Educator Tutorial Series discloses the claimed method for establishing a connection between the computing device and the selected alternate display device (the window labeled "New Call" on page 3 that enables creating a remote connection to a selected display device; steps 1-3 listed in the section "To place a call" on page 4 disclose the same details).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to establish a connection between the computing device and the selected alternate display device, as taught by Microsoft Educator Tutorial Series, in the method of Nurcahya et al., as modified by Chang et al., so that the advertising server can wirelessly project advertisements on the selected remote display terminals.

Consider **claim 64**, and **as applied to claim 63 above**, Nurcahya et al., as modified by Chang et al. and Microsoft Educator Tutorial Series, disclose the claimed method, wherein said establishing a connection includes:

generating a ticket by a remote connector component of the computing device (in Microsoft Educator Tutorial Series reference, the window labeled "New Call" on page 3 that generates a connection request packet (a ticket) for creating a remote connection to a selected display device; steps 1-3 listed in the section "To place a call" on page 4

disclose the same details);

transmitting the ticket to the selected alternate display device (in Microsoft Educator

Tutorial Series reference, step 3 listed in the section "To place a call" on page 4,

wherein when the call initiating party clicks on the "Call" button (shown in the window

labeled "New Call" on page 3), the call request packet is transmitted to the selected

alternate display device); and

receiving a response to said transmitting by the remote connector component (in

Microsoft Educator Tutorial Series reference, page 5, steps 1-2 in the section "To

receive a call", that disclose "Accept/Reject" buttons, such that when the receiving party

receives the connection request packet and clicks on the "Accept" button, a response

from the receiving device authorizing the transmission of content is sent to the

connection requesting party).

Consider **claim 65**, and **as applied to claim 64 above**, Nurcahya et al., as

modified by Chang et al. and Microsoft Educator Tutorial Series, disclose the claimed

method, wherein the ticket includes at least one of (A) information about how to connect

to the computing device and (B) information about a mode in which to connect (in

Microsoft Educator Tutorial Series, page 8, section "Sharing Applications", step 4, which

discloses choosing "Share Application" mode from the Tools menu before connecting to

place a call).

Consider **claim 66, and as applied to claim 65 above**, Nurcahya et al., as modified by Chang et al. and Microsoft Educator Tutorial Series, disclose the claimed method, wherein said mode includes at least one of a projection mode, an extended desktop mode and a mode for a specific application (in Microsoft Educator Tutorial Series, page 8, section "Sharing Applications", mode from the Tools menu before connecting to place a call).

Consider **claim 67, and as applied to claim 63 above**, Nurcahya et al., as modified by Chang et al. and Microsoft Educator Tutorial Series, disclose the claimed method, further comprising:

transmitting said selected content to said selected alternate display device via said connection (in Microsoft Educator Tutorial Series, page 6, section "To conduct chat sessions" and the "Chat" window content; steps 1-3 include a "Send" button and a "Send to:" dropdown list that enables transmitting the entered window content to the selected alternate display device via said connection).

Consider **claim 68, and as applied to claim 63 above**, Nurcahya et al., as modified by Chang et al. and Microsoft Educator Tutorial Series, disclose the claimed method, wherein said discovering includes detecting at least one advertisement of a capability to receive projected content from an alternate display device (in Chang et al. reference, paragraph 0136 that lists three different scenarios for the discovery process 502, the second of the three scenarios discloses that all service devices periodically or

continuously announce or advertise the services they provide; the computing device

listens to such announcements and identifies the service it needs).

Consider **claim 69**, and **as applied to claim 63 above**, Nurcahya et al., as

modified by Chang et al. and Microsoft Educator Tutorial Series, disclose the claimed

method, wherein said discovering includes issuing a search request for a particular type

of device via the discovery protocol whereby all devices of the particular device that

receive the search request respond by sending a message to said computing device (in

Chang et al. reference, paragraph 0136 that lists three different scenarios for the

discovery process 502, the first of the three scenarios discloses that the information

apparatus 100 (computing device) broadcasts a service request , for example, printing

through wired or wireless signals; wherein service devices, such as output devices 140

(in Fig. 1) listen to such signals and respond if they can provide the requested service).

Consider **claim 70**, and **as applied to claim 63 above**, Nurcahya et al., as

modified by Chang et al. and Microsoft Educator Tutorial Series, disclose the claimed

method, further including, after discovering an alternate display device of the at least

one alternate display device, downloading to said computing device a service document

of the alternate display device (in Chang et al. reference, Fig. 5, step 514; paragraphs

0149-0157 which disclose service negotiation step to determine the suitability of the

discovered device for performing the task at hand).

Consider **claim 71,** and **as it applies to claim 63 above,** Nurcahya et al., as modified by Chang et al. and Microsoft Educator Tutorial Series, further show and disclose a computer readable medium comprising computer executable modules having computer executable instructions for carrying out the method of claim 63 (claims 16-18 in Nurcahya et al. reference, along with the cited figures, paragraphs and lines in claim 63).

Consider **claim 72,** and **as it applies to claim 63 above,** Nurcahya et al., as modified by Chang et al. and Microsoft Educator Tutorial Series, further show and disclose a computing device comprising means for performing the method of claim 43 (system claims 1-15 in Nurcahya et al. reference, along with the cited figures, paragraphs and lines in claim 63).

Claims 29 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Nurcahya et al. (U.S. Patent Application Publication # 2003/0225621 A1)** in view of **Chang et al. (U.S. Patent Application Publication # 2002/0059415 A1)** and further in view of **Gross (U.S. Patent Application Publication # 2003/0028637 A1).**

Consider **claim 29,** and **as applied to claim 19 above,** Nurcahya et al., as modified by Chang et al., show and disclose the claimed computer readable medium, wherein the method further including:

selecting via the user interface an indication of said at least one indication **of the at**

least one alternate display device (in Chang et al. reference, Fig 8B; Graphic User

Interface 810 showing discovered display devices and a prompt to a user to indicate his

or her selection/choice by selecting one device from the displayed list; paragraph 0196

and 0199 disclose the same details).

However, Nurcahya et al., as modified by Chang et al., do not specifically

disclose destructing a remoting connection to the alternate display device associated

with the selected indication.

In the same field of endeavor, Gross shows and discloses the claimed computer

readable medium, wherein the method further including destructing a remoting

connection to the alternate display device associated with the selected indication (Fig.

1, hang-up switch 42; paragraphs 0044-0045 which disclose several implementations of

a method to sever or destruct a remote connection to an alternate display device).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time the invention was made to provide a method for destructing a remoting

connection to the alternate display device associated with the selected indication, as

taught by Brown et al., in the method of Nurcahya et al., as modified by Chang et al., so

as to be able to establish connection to another display without tying up resources no

longer needed.

Consider **claim 40**, and **as applied to claim 30 above**, Nurcahya et al., as

modified by Chang et al., show and disclose the claimed computer readable medium,

wherein the method further including:

selecting via the user interface an indication of said at least one indication *of the at least one alternate display device* (in Chang et al. reference, Fig 8B; Graphic User Interface 810 showing discovered display devices and a prompt to a user to indicate his or her selection/choice by selecting one device from the displayed list; paragraph 0196 and 0199 disclose the same details); and

destructing a remoting connection to the alternate display device associated with the selected indication (in Gross reference, Fig. 1, hang-up switch 42; paragraphs 0044-0045 which disclose several implementations of a method to sever or destruct a remote connection to an alternate display device).

Claims 31 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Nurcahya et al. (U.S. Patent Application Publication # 2003/0225621 A1)** in view of **Chang et al. (U.S. Patent Application Publication # 2002/0059415 A1)** and further in view of **Microsoft in Education (Collaborating with others using NetMeeting, 1999 Microsoft Educator Tutorial Series)** and further in view of **Gross (U.S. Patent Application Publication # 2003/0028637 A1).**

Consider **claim 31**, and **as applied to claim 30 above**, Nurcahya et al., as modified by Chang et al. and Microsoft Educator Tutorial Series, disclose the claimed computer readable medium, wherein the method further including:

selecting one of the plurality of displays via the user interface (in Nurcahya et al. reference, paragraph 0009 which discloses selecting at least one of a plurality of

different advertisements (shown in Fig. 5 as a database 52) to be remotely reviewed by

users; paragraph 0019 which further describes a user interface 51 (shown in Fig. 5) by

which the advertisement server 40 allows controlled advertising on the network 18 to

each of the plurality of portable data terminals 20, by having the advertising software

select, launch, and initiate the advertisements at all or selected ones of the plurality of

PDTs 20);

selecting via the user interface an indication of said at least one indication *of the at*

least one alternate display device (in Chang et al. reference, Fig 8B; Graphic User

Interface 810 showing discovered printer devices and a prompt to a user to indicate his

or her selection/choice by selecting one device from the displayed list; paragraph 0196

and 0199 disclose the same details);

creating a remoting connection to the alternate display device associated with the

selected indication (in Microsoft Educator Tutorial Series reference for a NetMeeting,

the window labeled "New Call" on page 3 that enables creating a remote connection to

a selected display device associated with the selected indication (address of the

computer to call); steps 1-3 listed in the section "To place a call" on page 4 disclose the

same details); and

transmitting the display to the alternate display device associated with the selected

indication via the remoting connection (in Nurcahya et al. reference, Fig. 4, step 63 that

shows transmitting preview to selected PDTs through network (the Internet 18 in Fig. 1);

paragraph 0029 describes the same details).

However, Nurcahya et al., as modified by Chang et al. and Microsoft Educator
Tutorial Series, do not specifically disclose selecting or transmitting a portion of a
display.

In the same field of endeavor, Gross discloses selecting and transmitting a
portion of a display (paragraph 0028 which discloses that the video data sent or
outputted to the image projection device 18 may be representative of an entire
computer screen, a portion of the computer screen, or the content of an application
window).

Therefore, it would have been obvious to a person of ordinary skill in the art at
the time the invention was made to provide means for selecting and transmitting a
portion of a display, as taught by Gross, in the computer readable medium of Nurcahya
et al., as modified by Chang et al. and Microsoft Educator Tutorial Series, so as to be
able to focus on the portion of the content under review.

Consider **claim 33**, and **as applied to claim 31 above**, Nurcahya et al., as
modified by Chang et al., Microsoft Educator Tutorial Series and Gross, disclose the
claimed computer readable medium, wherein said transmitting includes transmitting
input received by the at least one portion of the display as a special indication *of the at
least one alternate display device* on the alternate display device (in Microsoft
Educator Tutorial Series reference, page 8, paragraph 2 (marked as item 5) which
describes a "Remote Pointer On" that acts as a laser pointer to pinpoint area of interest
on a collaboration whiteboard shown in the figure on page 7; the shape and the position

of the laser pointer is transmitted as additional content along with the whiteboard

content and displayed on the selected remote display).

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Nurcahya et al. (U.S. Patent Application Publication # 2003/0225621 A1) in view of

Chang et al. (U.S. Patent Application Publication # 2002/0059415 A1) and further in

view of **Microsoft in Education (Collaborating with others using NetMeeting, 1999**

Microsoft Educator Tutorial Series) and further in view of **Gross (U.S. Patent**

Application Publication # 2003/0028637 A1) and further in view of **Reisman (U.S.**

Patent Application Publication # 2003/0229900 A1).

Consider **claim 32**, and **as applied to claim 31 above**, Nurcahya et al., as

modified by Chang et al., Microsoft Educator Tutorial Series and Gross, disclose the

claimed computer readable medium, except wherein said creating includes creating a

Terminal Services session with the alternate display device.

In the same field of endeavor, Reisman discloses the claimed computer readable

medium, wherein said creating includes creating a Terminal Services session with the

alternate display device (in Reisman reference, paragraph 0105 that describes creating

a remote session as a Windows Terminal Service (WTS) session with the display

device).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time the invention was made to create a Terminal Services session with the

alternate display device, as taught by Reisman, in the computer readable medium of

Nurcahya et al., as modified by Chang et al., Microsoft Educator Tutorial Series and

Gross, so as to be able to communicate and transfer the content to be displayed on the

remote display.

      Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Nurcahya et al. (U.S. Patent Application Publication # 2003/0225621 A1) in view of

Chang et al. (U.S. Patent Application Publication # 2002/0059415 A1) and further in

view of **Microsoft in Education (Collaborating with others using NetMeeting, 1999**

Microsoft Educator Tutorial Series) and further in view of **Gross (U.S. Patent**

Application Publication # 2003/0028637 A1) and further in view of **Rosen et al. (U.S.**

Patent Publication # 6,065,057).

      Consider **claim 34**, and **as applied to claim 33 above**, Nurcahya et al., as

modified by Chang et al., Microsoft Educator Tutorial Series and Gross, further disclose

the claimed computer readable medium, wherein said transmitting includes transmitting

pointer input received by the at least one portion of one of the plurality of displays as a

colored mark on the alternate display device (in Microsoft Educator Tutorial Series

reference, page 8, paragraph 2 (marked as item 5) which describes a "Remote Pointer

On" that acts as a red laser pointer to pinpoint area of interest on a collaboration

whiteboard shown in the figure on page 7; the shape and the position of the laser

pointer is transmitted as additional content along with the whiteboard content and displayed on the selected remote display).

However, Nurcahya et al., as modified by Chang et al., Microsoft Educator Tutorial Series and Gross, do not specifically disclose that the additional content is to be displayed as a colored mark.

In the same field of endeavor, Rosen et al. show and disclose the claimed computer readable medium, wherein said additional content is to be displayed as a colored mark (Fig. 8, modified pointer 44a; column 3, lines 54-60 which disclose a means for enabling cursors and pointers to change color, shape, etc., when the display terminal, which has a network connection, receives certain instructions from a remote or server computer attached to the network).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to display said additional content, i.e. mouse input of the computing device, as a colored dot, as taught by Rosen et al., in the computer readable medium of Nurcahya et al., as modified by Chang et al., Microsoft Educator Tutorial Series and Gross, so as to draw attention of the recipient to the specific display location under review.

Claims **43, 44, 48-52, 55 and 56** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Strunk et al. (U.S. Patent Application Publication # 2003/0078840 A1)** in view of **Chang et al. (U.S. Patent Application Publication # 2002/0059415 A1).**

Consider **claim 43,** Strunk et al. show and disclose a method for projecting

content from a first computing device to at least one other computing device (Fig. 1A

that shows a method for projecting content from a web content server 16 (a first

computing device) via the Internet or intranet to a computer 40 with touch screen

communication capable poster display 10 (another computing device); paragraphs

0071-0072 disclose the same details), including:

setting the first computing device into a Presentation mode (abstract that discloses an

interactive advertising and public announcement system, including a display device, for

processing and displaying media presentation; paragraph 0061 which discloses creating

a Playlist that includes a plurality of Interactive Posters categorized by subject matter,

e.g. products and services a company may offer, or in a multiplex theatre, movie titles

and trailers for each of the plurality of trailers);

instantiating on said first computing device software functionality associated with

content projection (paragraph 0010 which describes a distributed processor and a

distributed storage array that stores a program that is operative with the processor to

generate and project on the group display device one or more interactive posters;

paragraph 0061 which further discloses that the advertising presentation on a group

display device 10 (in Fig. 1A) may be personalized for different users or groups, thereby

disclosing instantiating on said first computing device software functionality associated

with content projection).

However, Strunk et al. do not specifically disclose discovering according to a

discovery mode whether at least one other computing device is available to receive and

display projected content; if at least one other computing device is discovered,

displaying a user interface reflecting the available at least one other computing device;

via the user interface, one of (A) selecting content to project, (B) selecting a target

device for projection and (C) configuring a projection characteristic.

In the same field of endeavor, Chang et al. show and disclose the claimed

method, including discovering according to a discovery mode whether at least one other

computing device is available to receive and display projected content (Fig. 5, discovery

process step 502; paragraphs 0132-0140 that disclose the details of the claimed

method); and

if at least one other computing device is discovered, displaying a user interface

reflecting the available at least one other computing device (flowchart of Fig. 6, that

shows providing a list of discovered output devices to user in step 600; Fig 8B that

shows a Graphic User Interface 810 displaying discovered printer devices; paragraph

0196 and 0199 disclose the same details; paragraph 0094 which further discloses that

although a printer is selected as an example output device 140 (see Fig. 1), it may also

be a television, monitor, and projectors, etc.);

via the user interface, selecting a target device for projection (Fig 8B that shows a

Graphic User Interface 810 displaying discovered target devices, and prompting user to

select one of the listed target device for projection; paragraph 0196 and 0199 disclose

the same details; paragraph 0094 which further discloses that although a printer is

selected as an example output device 140 (see Fig. 1), it may also be a television,

monitor, and projectors, etc.).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to discover according to a discovery mode whether at least one other computing device is available to receive and display projected content; if at least one other computing device is discovered, displaying a user interface reflecting the available at least one other computing device; via the user interface, one of (A) selecting content to project, (B) selecting a target device for projection and (C) configuring a projection characteristic, as taught by Chang et al., in the method of Strunk et al., so as to be able to locate and select a compatible projection device from a plurality of discovered devices.

Consider **claim 44,** and **as it applies to claim 43 above,** Strunk et al., as modified by Chang et al., further show and disclose the claimed method, wherein said instantiating includes instantiating said software functionality associated with content projection one of (A) at startup of the first computing device and (B) as part of said setting the first computing device into Presentation mode (in Strunk et al. reference, paragraph 0061 which discloses creating a playlist, while setting the first computing device into Presentation mode, wherein the playlist includes a plurality of Interactive Posters categorized by subject matter, e.g. products and services a company may offer, or in a multiplex theatre, movie titles and trailers for each of the plurality of trailers, thereby disclosing instantiating said software functionality associated with content projection as part of setting the first computing device into Presentation mode).

Consider **claim 48,** and **as it applies to claim 43 above**, Strunk et al., as modified by Chang et al., further show and disclose the claimed method, wherein said setting the first computing device into Presentation mode includes performing an operating system task (in Chang et al. reference, Fig. 8, properties screen 840 that enables a user to specify screen resolution during the presentation mode (an operating system task); paragraph 0204 discloses the same details; Note: although the properties shown in screen 840 are for a printer, display devices can also be specified, as disclosed earlier).

Consider **claim 49,** and **as it applies to claim 48 above**, Strunk et al., as modified by Chang et al., further show and disclose the claimed method, wherein said performing an operating system task includes at least one of (A) turning off notifications, (B) turning off screen blanking, (C) preventing audio from sources other than from the content to be projected, (D) changing an aspect of power distribution/conservation, (E) changing a desktop background and (F) changing a screen resolution (in Chang et al. reference, Fig. 8, properties screen 840 that enables a user to specify screen resolution during the presentation mode (an operating system task); paragraph 0204 discloses the same details; Note: although the properties shown in screen 840 are for a printer, display devices can also be specified, as disclosed earlier).

Consider **claim 50,** and **as it applies to claim 43 above**, Strunk et al., as modified by Chang et al., further show and disclose the claimed method, wherein said

discovering according to a discovery mode includes discovering for a predetermined amount of time after the Presentation mode is set (in Chang et al. reference, paragraphs 0146-0148 which disclose that a user may specify certain search criteria for discovery process 502 (in Fig. 5) and if no available output device 140 (in Fig. 1) is found in the discovery process, the user may be notified by the output manager 308 (in Fig. 3A) through a user interface, providing the reasons for unavailability of the devices; further disclosing in step 508 that alternatives are provided when a requested service is not available at the current moment, thereby teaching discovering for a predetermined amount of time after the Presentation mode is set).

Consider **claim 51,** and **as it applies to claim 43 above,** Strunk et al., as modified by Chang et al., further show and disclose the claimed method, wherein said discovering according to a discovery mode occurs in the background process of said first computing device without any user intervention (in Chang et al. reference, paragraph 0136 which discloses three different automated processes for discovering computing devices of interest, stating that the discovery process 502 may either broadcast a service request through wired or wireless signals, to which service devices respond; alternatively the service devices periodically or continuously advertise the services they provide, or the service devices may register their services with a controller or server and the discovering device may contact the controller or server for the required service, thereby disclosing that a discovery mode occurs in the background process of said first computing device without any user intervention).

Consider **claim 52,** and **as it applies to claim 43 above,** Strunk et al., as

modified by Chang et al., further show and disclose the claimed method, wherein said

displaying includes displaying via the user interface at least one of (A) a status of

projection, (B) an indication of an ability to disconnect from at least one other computing

device, (C) an indication that additional other devices are available (in Chang et al.

reference, flowchart of Fig. 6, that shows providing a list of discovered output devices to

user in step 600; Fig 8B that shows a Graphic User Interface 810 displaying discovered

printer devices; paragraph 0196 and 0199 disclose the same details; paragraph 0094

which further discloses that although a printer is selected as an example output device

140 (see Fig. 1), it may also be a television, monitor, and projectors, etc.), (D) an

indication that at least one other computing device discovered according to said

discovering is currently unable to receive content and (E) an indication of most recently

used (MRU) other devices that may be selected to bypass said discovering for the

recently used other devices (in Chang et al. reference, paragraph 0135 which discloses

that in some situations, the discovery process 502 may be skipped if a user already

knows the output device to which output is to be directed (e.g. a frequently used device

that is available)).

Consider **claim 55,** and **as it applies to claim 43 above,** Strunk et al., as

modified by Chang et al., further show and disclose a computer readable medium

comprising computer executable modules having computer executable instructions for

carrying out the method of claim 43 (claims 39-70 in Chang et al. reference and the

system claims 1-30 in the Strunk et al. reference, along with the cited figures,

paragraphs and lines in claim 43).

Consider **claim 56,** and **as it applies to claim 43 above,** Strunk et al., as

modified by Chang et al., further show and disclose a computing device comprising

means for performing the method of claim 43 (claim 1 in Chang et al. reference and the

system claims 1-30 in the Strunk et al. reference, along with the cited figures,

paragraphs and lines in claim 43).

Claims 45-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Strunk et al. (U.S. Patent Application Publication # 2003/0078840 A1) in view of

Chang et al. (U.S. Patent Application Publication # 2002/0059415 A1) and further in

view of **Microsoft in Education (Collaborating with others using NetMeeting, 1999
Microsoft Educator Tutorial Series).**

Consider **claim 45,** and **as it applies to claim 43 above,** Strunk et al., as

modified by Chang et al., show and disclose the claimed method, except wherein said

setting includes setting the first computing device into Presentation mode via any of (A)

a menu location under a start menu, (B) a top level user interface mechanism of said

user interface, (C) display bar part (D) a shortcut and (E) a sidebar.

In the same field of endeavor, Microsoft Educator Tutorial Series disclose the claimed method, wherein said setting includes setting the first computing device into Presentation mode via any of (A) a menu location under a start menu, (B) a top level user interface mechanism of said user interface, (C) display bar part (D) a shortcut and (E) a sidebar (Whiteboard figure shown on page 7; step 1 of the section "To use the Whiteboard" that teaches either clicking on a shortcut "Whiteboard" or selecting it from the Tools menu in order to setting the first computing device into Presentation mode);

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to set the first computing device into Presentation mode via any of (A) a menu location under a start menu, (B) a top level user interface mechanism of said user interface, (C) display bar part (D) a shortcut and (E) a sidebar, as taught by Microsoft Educator Tutorial Series, in the method of Strunk et al., as modified by Chang et al., so as to be able to configure the computing device for projecting content on at least one of the discovered display devices.

Consider **claim 46,** and **as it applies to claim 43 above**, Strunk et al., as modified by Chang et al. and Microsoft Educator Tutorial Series, further show and disclose the claimed method, wherein said configuring includes at least one of (A) setting a password for the projection, (B) selecting a cloning mode or an extended mode, (C) selecting the screen resolution and (D) selecting video or audio and video (in Microsoft Educator Tutorial Series, pages 10-11 that disclose steps to invoke audio conferencing or configure video conferencing in a collaborative NetMeeting).

Consider **claim 47,** and **as it applies to claim 46 above,** Strunk et al., as

modified by Chang et al. and Microsoft Educator Tutorial Series, further show and

disclose the claimed method, wherein at least one of (A) said selecting a cloning mode

or an extended mode defaults to cloning mode and (B) said selecting the screen

resolution defaults to current settings and (C) said selecting video or audio and video

defaults to audio and video (in Microsoft Educator Tutorial Series, page 11 that

discloses settings to configure video conferencing as a default, whereas the audio

conference is controlled as the conference continues).

Claim 49 is also rejected under 35 U.S.C. 103(a) as being unpatentable over

Strunk et al. (U.S. Patent Application Publication # 2003/0078840 A1) in view of

Chang et al. (U.S. Patent Application Publication # 2002/0059415 A1) and further in

view of **Olson et al. (U.S. Patent Publication # 7,140,731 B2).**

Consider **claim 49,** and **as it applies to claim 48 above,** Strunk et al., as

modified by Chang et al. and Olson et al., further show and disclose the claimed

method, wherein said performing an operating system task includes at least one of (A)

turning off notifications, (B) turning off screen blanking, (C) preventing audio from

sources other than from the content to be projected, (D) changing an aspect of power

distribution/conservation, (E) changing a desktop background and (F) changing a

screen resolution (in Olson et al. reference, Fig. 10, user interface screen 400,

preferences section 470 that enables a user to set screen resolution using a slider scale

418, turn off other application alert messages by selecting the checkbox 422, and turn

off screen saver while projecting by selecting the checkbox 424 during the presentation

mode (an operating system task); column 12, lines 6-22 disclose the same details).

Claim 53 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Strunk**

et al. (U.S. Patent Application Publication # 2003/0078840 A1) in view of **Chang et**

al. (U.S. Patent Application Publication # 2002/0059415 A1) and further in view of

Loisey et al. (U.S. Patent Application Publication # 2002/0133330 A1).

Consider **claim 53**, and **as applied to claim 43 above**, Strunk et al., as modified

by Chang et al., disclose the claimed method, except further comprising assigning a

name and a password to the content, whereby content can only be sent to a selected

target device if the name and password are received from the selected target device for

projection.

In the same field of endeavor, Loisey et al. disclose the claimed method, further

comprising:

assigning a name and a password to the content, whereby content can only be sent to a

selected target device if the name and password are received from the selected target

device for projection (paragraph 0030 which discloses that a user at the selected target

device has to supply a userid and a password or other authentication information before

any output is displayed on the selected target device's display; paragraph 0059 which

further discloses setting access control privileges on directory objects so that individual

users or groups of users may only have access to specific objects including data and

software applications to which they have subscribed access and use privilege).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time the invention was made to assign a name and a password to the content,

whereby content can only be sent to a selected target device if the name and password

are received from the selected target device for projection, as taught by Loisey et al., in

the method of Strunk et al., as modified by Chang et al., so as to be prevent

unauthorized download of proprietary content on to a target device.

Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Strunk**

et al. (U.S. Patent Application Publication # 2003/0078840 A1) in view of **Chang et**

al. (U.S. Patent Application Publication # 2002/0059415 A1) and further in view of

Reisman (U.S. Patent Application Publication # 2003/0229900 A1).

Consider **claim 54**, and **as applied to claim 43 above**, Strunk et al., as modified

by Chang et al., show and disclose the claimed method, further including in response to

said selecting content to project and said selecting a target device for projection,

projecting said content to said target device via said remote session (in Strunk et al.

reference, Fig. 1A that shows a method for projecting content from a web content server

16 (a first computing device) via the Internet or intranet to a computer 40 with touch

screen communication capable poster display 10 (another computing device); paragraphs 0071-0072 disclose the same details).

However, Strunk et al., as modified by Chang et al., do not specifically disclose creating a remote session between said first computing device and said target device in response to said selecting content to project and said selecting a target device for projection.

In the same field of endeavor, Reisman discloses the claimed method, further including in response to said selecting content to project and said selecting a target device for projection, creating a remote session between said first computing device and said target device (paragraphs 0051, 0105, 0479 and 0480 that disclose establishing a remote session, via a remote protocol (RDP or Citrix ICA), between the computing device and the selected target device).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to establish a remote session, via a remote protocol, between the computing device and the selected target device, as taught by Reisman, in the method of Strunk et al., as modified by Chang et al., so that the selected content can be displayed remotely at the selected target device.

Claims 74 and 75 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Microsoft in Education (Collaborating with others using NetMeeting, 1999 Microsoft Educator Tutorial Series)** in view of **Chang et al. (U.S. Patent Application Publication # 2002/0059415 A1).**

Consider **claim 74,** Microsoft Educator Tutorial Series discloses a method for

controlling an alternate display device (page 3, section "Using NetMeeting", which

describes a session (NetMeeting) that an instructor of an online course may use to have

an online discussion in real time with his or her students; page 5, section "To receive a

call" further discloses an "Accept/Reject" button in the lower right corner of the window

that enables meeting originators to allow or disallow users to join the meeting, thereby

disclosing controlling an alternate display device), comprising:

establishing a connection between a computing device and an alternate display device

for the purpose of projecting content from the computing device to the alternate display

device (page 4, section "To place a call", steps 1-3 describe the method used to

establish a connection between a computing device and an alternate display device for

the purpose of projecting content from the computing device to the alternate display

device; Whiteboard figure in page 7 shows a sample of the projected content from the

computing device to the alternate display device);

receiving from the alternate display device**, after establishing the connection,** a

session token that identifies the projection session between the alternate display device

and the computing device and authorizes said computing device to control the

projection session of the alternate display device (page 5, section "To receive a call",

steps 1-2 which describe "Accept/Reject" buttons in the lower right corner of a

recipient's window, that enables the call recipient to accept the invitation to join the

NetMeeting being set up, by clicking on the "Accept" button, thereby sending a session

token that identifies the projection session between the alternate display device and the computing device).

However, Microsoft Educator Tutorial Series does not specifically mention authorizing said computing device to control the projection session of the alternate display device; and controlling the alternate display device according to the authorization of the session token.

In the same field of endeavor, Chang et al. disclose the claimed method, further comprising authorizing said computing device to control the projection session of the alternate display device (paragraph 0200 which discloses that if a printer (a display device) is restricted to be used by a certain group of users, the user may be required to provide identification information before being authorized to use and control the projection session of the alternate display device); and controlling the alternate display device according to the authorization of the session token (paragraph 0201 which discloses service negotiation process 514 (in Fig. 6) that results in the authorization of the session token from the alternate display device; Fig. 8E, screen 840 which shows a user interface to select preferences such as page range, number of copies, color or grayscale, resolution, etc., thereby disclosing controlling the alternate display device (printer)).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to authorize said computing device to control the projection session of the alternate display device; and control the alternate display device according to the authorization of the session token, as taught by Chang et al., in

the method of Microsoft Educator Tutorial Series, so that the computing device can
display content on the alternate display device, according to the agreed upon terms that
are based on the capabilities of the alternate display device.

Consider **claim 75,** and **as it applies to claim 74 above,** Microsoft Educator
Tutorial Series, as modified by Chang et al. further discloses the claimed method,
wherein said controlling includes at least one of (A) disconnecting said connection, (B)
changing the display settings for the projection session, (C) retrieving the display
settings for the projection session, (D) transferring authorization to control the alternate
display device to a third party device and (E) blanking out the projection session on the
alternate display device (in Chang et al. reference, paragraph 0204 which describes
several settings that the user may change for the projection session, such as color or
grayscale, page layout parameters, resolution, etc.).

Claim 75 is also rejected under 35 U.S.C. 103(a) as being unpatentable over
**Microsoft in Education (Collaborating with others using NetMeeting, 1999
Microsoft Educator Tutorial Series)** in view of **Chang et al. (U.S. Patent Application
Publication # 2002/0059415 A1)** and further in view of **Olson et al. (U.S. Patent
Publication # 7,140,731 B2).**

Consider **claim 75,** and **as it applies to claim 74 above,** Microsoft Educator
Tutorial Series, as modified by Chang et al., and Olson et al., further show and disclose

the claimed method, wherein said performing an operating system task includes at least

one of (A) turning off notifications, (B) turning off screen blanking, (C) preventing audio

from sources other than from the content to be projected, (D) changing an aspect of

power distribution/conservation, (E) changing a desktop background and (F) changing a

screen resolution (in Olson et al. reference, Fig. 10, user interface screen 400,

preferences section 470 that enables a user to set screen resolution using a slider scale

418, turn off other application alert messages by selecting the checkbox 422, and turn

off screen saver while projecting by selecting the checkbox 424 during the presentation

mode (an operating system task); column 12, lines 6-22 disclose the same details).

Claim 79 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Chang

et al. (U.S. Patent Application Publication # 2002/0059415 A1)** in view of **Microsoft

in Education (Collaborating with others using NetMeeting, 1999 Microsoft

Educator Tutorial Series).**

Consider **claim 79,** and **as it applies to claim 78 above,** Chang et al., show and

disclose the claimed method, except wherein said displaying includes displaying

alternate content in addition to the content on the display.

In the same field of endeavor, Microsoft Educator Tutorial Series discloses the

claimed method, wherein said displaying includes displaying alternate content in

addition to the content on the display (page 8, section "Using the Whiteboard", step 5,

which discloses adding a "Remote Pointer" similar to a laser pointer used in

presentations; the remote pointer pointing to an area of emphasis in the remotely

projected content).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time the invention was made to display alternate content in addition to the content

on the display, as taught by Microsoft Educator Tutorial Series, in the method of Chang

et al., so that remote participants can notice the portion of the content that is being

emphasized by the presenter.

Claims 80-82 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Microsoft in Education (Collaborating with others using NetMeeting, 1999

Microsoft Educator Tutorial Series) in view of **Reisman (U.S. Patent Application**

Publication # 2003/0229900 A1) and further in view of **Chang et al. (U.S. Patent**

Application Publication # 2002/0059415 A1).

Consider **claim 80**, Microsoft Educator Tutorial Series discloses a method for

enabling an alternate display device to receive content from a computing device (Page

7, "Using the Whiteboard", which shows an alternate display device receiving contents

(of a whiteboard with tic-tac-toe game) from a computing device (that initiated the video

conference)), comprising:

receiving a request to deliver the content from the computing device via a network

(Page 5, section "Ro receive a call", step 1 that discloses receiving a call (request) to

participate in a NetMeeting, and to receive conference contents from the caller

(conference organizer's computing device) via the Internet or intranet; step 1 further

disclosing displaying an "Accept/Reject" button on the alternate display device after the

request is received);

in response to said receiving, accepting the request via a user interface (the placing of

"Accept/Reject" button on the alternate display device provides a user interface to the

alternate display participant to accept or decline the request), and

receiving the content from the computing device over the network (Page 7, "Using the

Whiteboard", which shows the alternate display device receiving contents (of a

whiteboard with tic-tac-toe game) from the computing device (that initiated the video

conference).

However, Microsoft Educator Tutorial Series does not specifically discuss

establishing a remote computing session **between the computing device and the**

alternate display device; and disclosing that **the alternate display device comprises**

at least one of a projector, a monitor, or a laptop.

In the same field of endeavor, Reisman discloses the claimed method, including

establishing a remote computing session between the computing device and the

alternate display device (paragraphs 0051, 0105, 0479 and 0480 that disclose

establishing a remote session, via a remote protocol (RDP or Citrix ICA), between the

computing device and the selected at least one alternate display device).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time the invention was made to establish a remote computing session with the

computing device, as taught by Reisman, in the method of Microsoft Educator Tutorial

Series, so that the computing device can remotely display conference content on the selected alternate display devices.

However, Microsoft Educator Tutorial Series, as modified by Reisman, does not specifically disclose that **the alternate display device comprises at least one of a projector, a monitor, or a laptop.**

In the same field of endeavor, Chang et al. discloses that **the alternate display device comprises at least one of a projector, a monitor, or a laptop (paragraph 0094 which discloses that although a printer is selected as an example output device 140 (see Fig. 1), it may also be a television, monitor, and projectors, etc.).**

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide, as an alternate display device, at least one of a projector, a monitor, or a laptop, as taught by Chang et al., in the method of Microsoft Educator Tutorial Series, as modified by Reisman, so that the computing device can remotely display conference content on the selected alternate display devices, the more popular of such devices being a television, a monitor, or a projector.

Consider **claim 81**, and **as applied to claim 80 above**, Microsoft Educator Tutorial Series, as modified by Reisman and Chang et al., discloses the claimed method, further comprising rendering the content received from the computing device (in Microsoft Educator Tutorial Series, Page 7, "Using the Whiteboard", which shows the alternate display device rendering contents (of a whiteboard with tic-tac-toe game) received from the computing device.

Consider **claim 82**, and **as applied to claim 81 above**, Microsoft Educator

Tutorial Series, as modified by Reisman, discloses the claimed method, except wherein

said rendering includes rendering the content according to an accessibility infrastructure

located on the alternate display device.

In the same field of endeavor, Chang et al. disclose the claimed method, wherein

said rendering includes rendering the content according to an accessibility infrastructure

located on the alternate display device (paragraph 0144 which discloses that security

authentication may be required when an output service is restricted to a certain group of

users or information apparatuses, consequently a particular user may not be able to

render the contents on the located alternate display device).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time the invention was made to render the content according to an accessibility

infrastructure located on the alternate display device, as taught by Chang et al., in the

method of Microsoft Educator Tutorial Series, as modified by Reisman, so as to be able

to maintain the security of the alternate display device by limiting access to it.

Claim 83 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Microsoft in Education (Collaborating with others using NetMeeting, 1999

Microsoft Educator Tutorial Series) in view of **Reisman (U.S. Patent Application**

Publication # 2003/0229900 A1) and further in view of **Chang et al. (U.S. Patent**

Application Publication # 2002/0059415 A1) and further in view of **Darby (U.S.**

Patent Application Publication # 2003/0013438 A1).

Consider **claim 83**, and **as applied to claim 81 above**, Microsoft Educator

Tutorial Series, as modified by Reisman and Chang et al., discloses the claimed

method, except wherein said rendering includes rendering the content according to a

multi lingual user interface such that the content is displayed according to the another

language.

In the same field of endeavor, Darby discloses the claimed method, wherein said

rendering includes rendering the content according to a multi lingual user interface such

that the content is displayed according to the another language (paragraph 0047 which

discloses that the maps, directions, and other display contents are in the native

language of the end-user (Japanese in the tourist example), and can also be bi-lingual

(in both the end-user's language and the local language in the visited country), to

facilitate asking bystanders for assistance; further disclosing that display of two or more

languages is selectable by the end-user).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time the invention was made to render the content according to a multi lingual user

interface such that the content is displayed according to the another language, as

taught by Darby, in the method of Microsoft Educator Tutorial Series, as modified by

Reisman and Chang et al., so as to be able to communicate and transfer the content in

any language familiar to the recipient viewing contents on a remote display.

Claim 84 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Microsoft in Education (Collaborating with others using NetMeeting, 1999

Microsoft Educator Tutorial Series) in view of **Reisman (U.S. Patent Application**

Publication # 2003/0229900 A1) and further in view of **Strunk et al. (U.S. Patent**

Application Publication # 2003/0078840 A1) and further in view of **Chang et al. (U.S.**

Patent Application Publication # 2002/0059415 A1).

Consider **claim 84**, Microsoft Educator Tutorial Series discloses a method for

enabling an alternate display device to receive content from a computing device (Page

7, "Using the Whiteboard", which shows an alternate display device receiving contents

(of a whiteboard with tic-tac-toe game) from a computing device (that initiated the video

conference)), comprising:

requesting via a user interface to receive projected content from the computing device

("New Call" window shown on page 3 and the steps 1-4 listed under "To place a call" for

a participant "To join an existing meeting", the steps and the new call window providing

a user interface to receive projected content from the computing device);

sending a request to receive projected content from the computing device (step 3 of "To

place a call" wherein the participant clicks the "Call" button, thereby sending a request

to receive projected content from the computing device);

receiving a response from the computing device (steps 4 and 5 of "To place a call" that

disclose displaying an "Accept/Reject" button at the computing device end that enables

the participant at the computing end device to either agree to or deny participation of the alternate display device wishing to receive the projected content of the meeting; further disclosing that the alternate display device receives either an accept response or a reject response from the computing device);

However, Microsoft Educator Tutorial Series does not explicitly disclose *that the alternate display device comprises at least one of a projector, a monitor, or a laptop; also that the alternate display device* receiving a response including information to establish a remote computing session with the computing device; and establishing a remote computing session *between the computing device and the alternate display device* based on said information; and wirelessly receiving the content from the computing device.

In the same field of endeavor, Reisman discloses the claimed method including receiving a response including information to establish a remote computing session with the computing device; and establishing a remote computing session *between the computing device and the alternate display device* based on said information (paragraph 479 which discloses that in order to establish, join and maintain a remote session, relevant state information for that remote session be transferred).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to receive a response including information to establish a remote computing session with the computing device and establish a remote computing session between the computing device and the alternate display device based on said information, as taught by Reisman, in the method of Microsoft Educator

Tutorial Series, so as to be able to project contents remotely from the computing device
to the alternate display device.

However, Microsoft Educator Tutorial Series, as modified by Reisman, does not
specifically disclose *that the alternate display device comprises at least one of a
projector, a monitor, or a laptop; and* wirelessly receiving the content from the
computing device.

In the same field of endeavor, Strunk et al. disclose the claimed method including
wirelessly receiving the content from the computing device (Fig. 1A that shows a
method for projecting content from a web content server 16 (a computing device) via the
Internet or intranet to a computer 40 with touch screen communication capable poster
display 10 (alternate display device); paragraphs 0071-0072 disclose the same details;
claim 16 which discloses that the remote device comprises a transceiver for sending
and receiving content wirelessly).

Therefore, it would have been obvious to a person of ordinary skill in the art at
the time the invention was made to wirelessly receive the content from the computing
device, as taught by Strunk et al., in the method of Microsoft Educator Tutorial Series,
as modified by Reisman, so as to provide contents to mobile as well as wired remote
devices.

However, Microsoft Educator Tutorial Series, as modified by Reisman and Strunk
et al., does not specifically disclose that *the alternate display device comprises at
least one of a projector, a monitor, or a laptop.*

In the same field of endeavor, Chang et al. discloses that **the alternate display device comprises at least one of a projector, a monitor, or a laptop (paragraph 0094 which discloses that although a printer is selected as an example output device 140 (see Fig. 1), it may also be a television, monitor, and projectors, etc.).**

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide, as an alternate display device, at least one of a projector, a monitor, or a laptop, as taught by Chang et al., in the method of Microsoft Educator Tutorial Series, as modified by Reisman and Strunk et al., so that the computing device can remotely display conference content on the selected alternate display devices, the more popular of such devices being a television, a monitor, or a projector.

Claims 85 and 86 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Olson et al. (U.S. Patent Publication # 7,140,731 B2)** in view of **Reisman (U.S. Patent Application Publication # 2003/0229900 A1)** and further in view of **Chang et al. (U.S. Patent Application Publication # 2002/0059415 A1).**

Consider **claim 85**, Olson et al. show and disclose a method for projecting content from a plurality of computing devices to an alternate display device (Fig. 4 that shows a plurality of computing devices 56-64, either wired or wirelessly connected via network 61 to an image-rendering device 14; column 5, line 59 through column 6, line

39 disclose the details of a method for projecting content from a plurality of computing

devices 56-64 to image-rendering device 14), comprising:

transmitting first content from the first computing device to the alternate display device

via the remote session, rendering the first content via a first display of the first

computing device, transmitting second content from a second computing device to the

alternate display device via the remote session; and rendering the second content via a

second display of the second computing device (Figs. 2 and 4; column 2, lines 58-61

which disclose that the image-rendering device 14 (alternate display device) is adapted

to receive images from a plurality of different sources and is further adapted to

automatically transmit a projectable image to image projector 12 as shown in Fig. 4;

also, column 6, lines 4-31 which disclose using a wireless network card within the image

rendering device 14, so that a plurality of users can alternatively link to the local area

network and send images/presentations to an image projector without individually

having to manually couple their computer to a projector; further disclosing that usually

the user who is presenting or the active presenter must release or exit from the currently

active presentation to enable a second presenter to begin sending data to device 14 for

presentation);

discovering according to a discovery protocol an alternate display device capable of

receiving and rendering projected content (Figs 9A-9B and 10 that show a flowchart for

discovering an alternate display device in a network environment, and the results of the

discovery (in Fig. 10); column 10, lines 20-67 describe the details of discovering the

image-rendering devices over the WLAN).

However, Olson et al. do not specifically disclose that *the alternate display device comprises at least one of a projector, a monitor, or a laptop;* and establishing a remote session, via a remoting protocol, between a first computing device of the plurality of computing devices and the alternate display device.

In the same field of endeavor, Reisman discloses the claimed method, further comprising establishing a remote session, via a remoting protocol, between a first computing device of the plurality of computing devices and the alternate display device (paragraphs 0051, 0105, 0479 and 0480 that disclose establishing a remote session, via a remoting protocol (RDP or Citrix ICA), between a computing device of the plurality of computing devices and an alternate display device).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to establish a remote session, via a remoting protocol, between a first computing device of the plurality of computing devices and the alternate display device, as taught by Reisman, in the method of Olson et al., so that the contents from a computing device may be remotely displayed by the alternate display device during the remote session set up for the purpose.

However, Olson et al., as modified by Reisman, do not specifically disclose that *the alternate display device comprises at least one of a projector, a monitor, or a laptop.*

In the same field of endeavor, Chang et al. discloses that *the alternate display device comprises at least one of a projector, a monitor, or a laptop* (paragraph

0094 which discloses that although a printer is selected as an example output device 140 (see Fig. 1), it may also be a television, monitor, and projectors, etc.).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide, as an alternate display device, at least one of a projector, a monitor, or a laptop, as taught by Chang et al., in the method of Olson et al., as modified by Reisman, so that the computing device can remotely display conference content on the selected alternate display devices, the more popular of such devices being a television, a monitor, or a projector.

Consider **claim 86**, and **as applied to claim 85 above**, Olson et al., as modified by Reisman and Chang et al., further disclose the claimed method, wherein the remoting protocol is the remote desktop protocol and the remote session is a terminal services (TS) session (in Reisman reference, paragraph 0105 that describes the remote protocol as Windows Remote Desktop Protocol (RDP) or Citrix Independent Computing Architecture (ICA), and remote session as a Windows Terminal Service (WTS)).

Consider **claim 88**, and **as applied to claim 85 above**, Olson et al., as modified by Reisman and Chang et al., further disclose the claimed method, ~~further including~~ wherein the discovery protocol is the universal plug and play (UPnP) protocol (in Chang et al. reference, Fig. 5, discovery process step 502; paragraphs 0136-0137 which disclose a plurality of discovery protocols, such as Bluetooth, HAVi, Jini, Salutation, Service Location Protocol, and Universal Plug and Play, etc.).

Claim 87 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Olson et al. (U.S. Patent Publication # 7,140,731 B2)** in view of **Reisman (U.S. Patent Application Publication # 2003/0229900 A1)** and further in view of **Chang et al. (U.S. Patent Application Publication # 2002/0059415 A1)** and further in view of **Microsoft in Education (Collaborating with others using NetMeeting, 1999 Microsoft Educator Tutorial Series).**

Consider **claim 87**, and **as applied to claim 85 above**, Olson et al., as modified by Reisman and Chang et al., disclose the claimed method, except wherein the rendering of the first content is substantially simultaneous with said transmitting of the first content.

In the same field of endeavor, Microsoft Educator Tutorial Series discloses the claimed method, wherein the rendering of the first content is substantially simultaneous with said transmitting of the first content (page 2, section "Before You Begin", lines 1-5, which disclose that the NetMeeting is a synchronous online collaboration and communication method that happens in "real time", thereby teaching that the content is substantially simultaneously displayed on the selected receiving display device in response to said transmitting).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a method wherein the rendering of the first content is substantially simultaneous with said transmitting of the first content, as taught

by Microsoft Educator Tutorial Series, in the method of Olson et al., as modified by

Reisman and Chang et al., so as to be able to communicate and transfer the content in

real time to a recipient viewing the contents on a remote display.

Response to Arguments

Applicants' arguments filed 07/16/2009 have been fully considered but they are

not persuasive. The examiner's cited prior art show and disclose all claim elements,

which are therefore obvious and non-novel and therefore not allowable. The examiner's

response to applicants' arguments is shown below:

Consider **claims 19-29 and 30-40**. These claims were rejected under 35 USC

112, second paragraph, as being indefinite, because the specification did not describe a

"Projection protocol" and an "extension protocol", which were the terms used in these

claims. The examiner's search of the entire specification did not provide any mention of

these protocols. Therefore, the 35 USC 112 rejections for these claims are not

withdrawn.

However, 35 USC 112, second paragraph rejections for **claims 24, 26, 27, 29,**

31, 33, 38, 40 and 75 are being withdrawn due to amendments made to these claims.

Consider **claims 76-78,** rejected under 35 USC 102(b) as being anticipated by

Chang (US Patent Application Publication # 2002/0059415 A1**).** The applicants claim

that Chang does not teach or suggest "specifying *via a user interface mechanism of a*

computing device that the computing device is available to *receive* projected content".

The applicants argue that the "user interface" of Chang is located on a content sending

device. The examiner respectfully disagrees with this argument, And refer the

applicants to paragraphs 0197 and 0207 of the Chang prior art. Paragraph 0197 recites

"Referring to Fig. 8A, a user **receives** an email ....". Thus Chang is referring to a user

interface on a receiving device, not for a sending device, as alleged. Likewise,

paragraph 0207 further recites "Figs. 8A-8E illustrate only one example of the output

process ...", thus, reinforcing that Figs. 8A-8E show a receiving device, not a sending

device. Therefore, rejection of claims 76-78 is appropriate and cannot be withdrawn.

Now consider amended independent **claims 1, 80, 84, and 85**. On page 22 of

the "Remarks", applicants have argued that the remote sessions of Reisman are not

between a computing device and an alternate display device, but between two

computing devices. The examiner begs to differ with this argument. Paragraph 0105 in

the cited Reisman reference discloses a tablet (a thin client) device with its own browser

that obtains hypermedia resources in HTML format and renders them into presentation

format for display; further disclosing that if such a tablet uses Windows Terminal

Services (WTS) with Remote Desktop Protocol (RDS) or Citrix ICA to support a

relatively dumb thin client that for the most part offers <u>basic I/O terminal functions</u> (such

as display) only, thereby disclosing that the tablet device acts as an alternate display

device when using RDP.

Next, consider independent **claim 19**. On page 23 of the "Remarks", applicants

argue that the amended claim 19 now requiring "user configuration" is not taught by the

combined teachings of Nurcahya in view of Chang. The examiner has cited additional

teaching in Chang et al. reference, that teach the same limitation of "user configuration".

As to independent **claim 30**, the applicants argue that neither Nurcahya nor Chang discloses displaying "separate portions of content, effectively disaggregating the display of the computing device". Again, the examiner respectfully disagrees with this argument. Since advertisements include both text and pictures (see Fig. 2 in Nurcahya), and since text is displayed separately from the pictures, and different advertisements are displayed at different locations on different display devices, separate portions of the advertisements content are displayed separately by Nurcahya, effectively disaggregating the display of the computing devices.

On pages 24-25 of the "Remarks" section, applicants argue that supplied motivation to combine Nurcahya, as modified by Chang et al., with Reisman to reject independent **claims 41 and 58** is improper, because it lacks motivation, since Nurcahya has already disclosed a solution for wirelessly projecting advertisements on remote display terminals. The examiner provides two responses to this argument. First, if Nurcahya, as modified by Chang et al., does indeed teach all claim elements of claims 41 and 58, so that there is no need to combine Reisman reference, the claims would still not be allowable. Second, applicants state that Nurcahya teaches "a wireless data communication interface positioned to provide wireless data communication to the global data communication network". Since this statement is not the same as "wirelessly projecting (i.e. displaying) content on the selected remote display devices", the examiner thought it prudent to include Reisman reference, which clearly discloses that claim element. The examiner is therefore justified in combining the Reisman

teaching with the Nurcahya advertising system, as modified by Chang, and reject claims 41 and 58 based on such combined teachings.

On pages 25-26 of the "Remarks", applicants argue that neither Strunk nor Chang et al. reference, used to reject independent **claim 43**, teaches or suggests at least one other ***computing device*** that may be available to receive and display projected content; then reciting a list of such computing devices from paragraph 0004 of the specification. The applicants allege that Strunk's Group Display Device is incapable of performing computations, it can only display advertisements, and that Chang's output devices (televisions, monitors, and projectors) are also not capable of any computation. Again, the examiner offers two responses for this argument. First, Strunk's Group Display Device includes various controls (Previous, Next, and Touch controls shown in Fig. 1A and 2) that require computational capability; paragraphs 0089-0092 that in addition disclose voice recognition capability. Such computations may not be the same as the applicants' list of devices in the cited paragraph 0004, but only the text of the claim under consideration needs to be considered, not what is listed in the specification. Second, the cited Chang et al. reference lists "monitors", which when broadly interpreted, may be the monitors of laptops, which certainly are computing devices.

On page 26 of the "Remarks" section, the applicants state that it is improper to combine the Microsoft in Education teaching with Nurcahya, as modified by Chang to reject **claim 63**, because there is no motivation for one skilled in the art to combine Microsoft Educator with Nurcahya in order to wirelessly project advertisements. The examiner has noticed many educational institutions that advertise their programs in

newspapers and on TV, as do many commercial enterprises that provide special corporate-specific tutorials. In such cases, one skilled in the art would be motivated to combine the three cited references to solve the problem at hand, i.e. "establishing a connection between the computing device and the selected alternate display device".

Regarding independent **claim 74**, applicants argue that the amended claim feature of receiving a session token "after establishing the connection", should make the claim allowable. The examiner disagrees with this reasoning. A session token (or any communication for that matter) can only be received, only when a connection is established. If a computing device and a display device have a broken connection, how can a session token be sent or received? It is obvious that a connection must first be established before any session token be sent or received.

In conclusion, the examiner has responded to all the arguments presented by the applicants, and has consequently concluded that the cited prior art used by the examiner in rejecting the claims teach or suggest each and every claim element. The claims are therefore obvious and non-novel, and hence not allowable in their present amended form.

Conclusion

Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed to**:

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P.O. Box 1450
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Art Unit: 2443

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Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Kishin G. Belani whose telephone number is (571) 270-1768. The Examiner can normally be reached on Monday-Friday from 6:00 am to 5:00 pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Tonia Dollinger can be reached on (571) 272-4170. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

/K. G. B./
Examiner, Art Unit 2443

November 11, 2009

/George C Neurauter, Jr./
Primary Examiner, Art Unit 2443